

Bad-Debt Loss Survey, 1939

Wholesalers and Manufacturers

Prepared in the Credit Analysis Unit, Marketing Research Division¹

SUMMARY

1. Compared with sales in 1938, net credit sales of reporting wholesalers gained 9 percent in 1939, with an 8.6 percent increase in total net sales. Reporting manufacturers' net credit sales advanced 12.4 percent in 1939, with total net sales moving up 11.4 percent from 1938. Credit sales were about 94 percent of total dollar volume in the samples of both wholesalers and manufacturers.

2. Net losses of reporting wholesalers averaged 0.31 percent of net credit sales in 1939, a decrease from 0.33 percent in 1938. Manufacturers' average net losses remained unchanged at 0.17 percent of net credit sales in both years.

3. In dollar volume, gross losses of wholesalers advanced one-half of 1 percent in 1939, recoveries decreased 5.9 percent, with resulting dollar volume of net losses 2 percent above those of 1938. Manufacturers' gross losses were up 7.2 percent in dollar volume in 1939, recoveries were down 10.2 percent, and net loss volume gained 10.8 percent from the 1938 volume.

4. The average wholesaler wrote off 2.79 percent of

the total number of accounts receivable on his books in 1939, a decrease from 2.89 percent in 1938. The proportion for manufacturers decreased from 2.13 percent to 2.04 percent during the same period.

5. An age analysis of accounts written off indicates that in both 1938 and in 1939 less than 50 percent of wholesalers' accounts written off arose from sales of the current year. For manufacturers, not more than 35 percent of the write-off was allocated to sales of the respective years. These facts provide the basis for a fundamental criticism of present methods of loss-ratio computation.

6. Analysis of wholesalers' and manufacturers' credit terms in relation to magnitude of bad-debt losses gives evidence that the liberality of credit terms is a factor in higher losses. Credit management, however, is an important element in controlling losses, which need not rise in proportion to terms liberality if such terms are properly adapted to the appraisal of risk.

SCOPE OF THE 1939 SURVEY

The 1939 annual Bad-Debt Loss Survey is based on voluntary reports submitted by 2,283 wholesalers, representing 26 major kind-of-business groups, and 1,493 manufacturing firms, covering 14 classified industrial groups. Compared with the first annual Bad-Debt Loss Survey made a year ago, the number of reporting wholesalers decreased 5 percent and of manufacturers 6 percent. In this study covering operations in 1938 and 1939, total net sales of the wholesale firms for 1938 were 10 percent lower than the dollar volume reported in the previous study for that year, at which point the two studies overlap with reference to basic figures. The reported volume of manufacturers' total sales was virtually the same for 1938 in both the first survey and the present report. The 1939 survey differs from the first of this series of studies, which presented comparative results for 1937-38, primarily in refinements of basic data for computation of bad-debt losses and in the extent of supplementary materials provided for additional analysis.

A fundamental change in the schedule forms mailed to wholesalers and manufacturers for the 1939 study was the request for separate figures on gross losses for 1938 and 1939, as well as the dollar amounts of recov-

eries during both years on accounts written off in prior years. These recoveries, or amounts debited to the bad-debt loss reserve or allowance, were desired for deduction from the reported gross amount of charge-off to assure the proper determination of net losses for the respective years. Recognizing the fact that samples for the 1938 and the 1939 studies may vary in composition, although not radically different in total number of firms reporting, it is nevertheless believed that a general lowering of loss ratios where both studies overlap on the year 1938 is due in some measure to this further refinement of the data.²

Although it was intended in both the 1938 and 1939 studies to secure the identical types of information on net credit sales, number of accounts written off as bad, and total number of accounts receivable of reporting firms, it is probable that with reference to the last factor an additional refinement of phraseology on the schedule for the 1939 survey provides the main reason for a further alteration of returns between the two studies for the overlapping year 1938. Specifically,

¹ Schedules for the 1939 annual Bad-Debt Loss Survey requested only "bad-debt losses written off" for that year and in 1937, on the apparent assumption that the terminology would automatically produce net-loss figures. Some doubt that this was entirely the case is indicated by the fact that the 1938 average loss of wholesalers for the first study was 0.37 percent of credit sales, compared with 0.33 percent for the same year as shown by comparative data in the 1939 study. For manufacturers, the comparable 1938 ratios for the first and second annual studies were 0.20 percent and 0.17 percent of credit sales respectively. It should not be overlooked, however, that although the samples of wholesalers and manufacturers showed respective decreases of only 5 and 6 percent from the first to the second study, there may have been wider changes in the samples according to the major factors which determine the magnitude of losses.

² The collection, computation, and assembly of data for the 1939 Bad-Debt Loss Survey were carried through by Arnold L. Skinner, William N. Lawrence, and Gerry R. Smith, under the supervision of Malcolm L. Merriam, Chief of the Credit Analysis Unit. The National Association of Credit Men, at whose request this annual report was initiated in 1938, aided in obtaining the project and in securing the cooperation of its members.

because of different wording, it is believed that firms reported closer approximates of the total number of their accounts receivable for the 1939 study. For 1938, the present study shows a larger average number of accounts per firm, with the result that the amount of the average sales per account for that year is somewhat reduced in this analysis from the average for the same year given in the first annual Bad-Debt Loss Survey.³

Knowledge that the sale of time-payment accounts receivable on nonrecourse arrangements may distort bad-debt loss ratios of retailers, notably automobile dealers, prompted an inquiry in this study to determine whether such sales were of measurable importance in the credit operations of wholesalers and manufacturers. In other words, if receivables are sold to a specialized financing agency which assumes responsibility for loss through failure of the creditor, the bad-debt loss ratio of the seller of such receivables will be fictitious, if computed by the usual method of dividing dollar losses only on receivables retained, by the dollar amount of all credit sales, including sales representing the accounts sold. Schedules for wholesalers and manufacturers requested the amounts of receivables sold in 1938 or 1939 on arrangements relieving the seller of any liability in case of default by the creditor.⁴ These amounts were intended for deduction from net credit sales of the respective years when calculating the loss ratios.

Results of this part of the analysis were largely negative, however. Only isolated firms in scattered business groups reported any sale of receivables, and the aggregate amount of receivables sold approximated only about one-tenth of 1 percent of the total credit sales reported by wholesalers and manufacturers for either year. What is probable is that the firms selling a large proportion of their receivables with full protection against loss did not contribute reports in representative numbers to this voluntary project. Presumably, they would secure little direct benefit by comparisons of their individual results with averages based upon operations of self-financing establishments.

Entirely new supplementary features of the 1939 Bad-Debt Loss Survey are (a) an age analysis of the accounts written off by reporting firms during both of the years covered and (b) an analysis of credit terms characteristically employed by wholesalers and manu-

facturers. The broad purpose of the age analysis was to determine what proportions of accounts debited to the bad-debt reserve in a particular year actually represent the charge-off of sales made in that same year, or relate to sales of the previous year and other prior years. As discussed in another section of the report, this distribution of the write-off of accounts has direct bearing upon present standard methods for computing loss ratios against credit sales of the current year only. Facts on credit terms to show cash discounts, time allowed to take the discount, and net period, although of interest in revealing typical trade practices, were collected primarily for the purpose of bringing out possible relationships between the range of such terms and bad-debt loss experience.

The contents of the present bad-debt loss study in several instances repeat the basic types of analysis which were found to produce significant relationships and were adequately reviewed in the study made a year ago. As these relationships, such as analysis of bad-debt losses by size of firm, would not change fundamentally in a short period, repetition is avoided wherever possible by confining the text to discussion of changes reflecting altered conditions in 1939 as compared with the previous year.

Owing to the large number of trades and industries covered in the report, discussion of each in close detail cannot be undertaken here. It is presumed that individual establishments obtaining the statistical data can readily segregate and apply the facts presented in the business or industry averages where they provide guides to credit policy.

CREDIT SALES

As a basic element in the computation of bad-debt-loss ratios, it is of interest to note the general trend as well as the magnitude of credit sales reported by the samples of wholesalers and manufacturers. The dollar volume of total net sales of reporting wholesalers increased 8.6 percent from 1938 to 1939. As net credit sales increased 9 percent between the 2 years, the proportion of net credit to total sales for the identical group of firms rose slightly from 91.9 to 92.2 percent (table 1).

Manufacturers' total net sales in 1939 revealed a larger increase in dollar volume of 11.4 percent above 1938, while their net credit sales showed a gain of 12.4 percent in the 2-year period. The relative advance of reporting manufacturers' credit sales carried the proportion of such sales to total sales from 89.6 to 90.4 percent (table 2).

Average Number of Accounts Per Firm and Average Credit Sales Per Account.

For all reporting wholesalers, the average number of accounts per firm increased from 1,223 in 1938 to 1,256 in 1939. Because of the larger growth of whole-

³ The 1938 Bad-Debt Loss Survey requested "approximate number of accounts receivable," whereas in the current study the question was worded "approximate number of firms (and/or individuals) to whom you sold on credit at any time . . . in [year]." The 1938 figures shown in the survey for that year disclosed manufacturers as averaging 2,221 accounts per firm, or an average credit sale per account of \$1,824. Comparable figures for 1938 given in this study are 2,550 accounts per firm, with an average credit sale proportionately reduced to \$618. For wholesalers, the 1938 averages from the first and second annual surveys on number of accounts are 1,111 and 1,223, with average size of account showing a corresponding decrease from \$775 to \$666.

⁴ In answering this question, firms were requested to report "none" if no accounts were sold on this basis. It was also indicated that figures given should not include insured accounts pledged for loans or held by the reporting firm. Recoveries from bad-debt insurance were to be included, however, with all other recoveries from accounts written off in prior years, for the ultimate purpose of deduction from gross bad-debt losses during the year in which such recoveries were made.

salers' credit sales over the same period, their average credit sales per account increased from \$666 to \$707 for the respective years.

The average number of accounts per firm for manufacturers revealed a much more substantial advance—from 2,560 in 1938 to 2,686 last year. Despite the relatively large increase in average number of accounts per manufacturing firm, average credit sales on such accounts also gained to \$1,016 in 1939 from \$949 in 1938.

Although these averages indicate the predominant trend in each case, wide variations in size and direction of change between kinds of business and industries are shown in detail in tables 1 and 2.

BAD-DEBT LOSSES

Gross and Net Losses.

Wholesalers.—Computed from net-loss figures, the average bad-debt loss of the 2,283 reporting wholesalers declined from 0.33 percent of net credit sales in 1938, to 0.31 percent in 1939. These ratios, however, conceal somewhat different changes in the various elements entering into their calculation. Gross bad-

debt losses of reporting wholesalers advanced from \$7,872,000 in 1938 to \$7,907,000 in 1939, an increase of less than one-half of 1 percent. On the other hand, recoveries during the respective years on old accounts charged off in prior years were \$1,735,000 in 1938 and \$1,634,000 in 1939, a decrease of 5.8 percent.

Subtraction of recoveries from gross losses for each year gives a resulting net bad-debt loss for reporting wholesalers of \$6,137,000 in 1939, an increase in the dollar volume of such net losses of 2 percent from 1938 to 1939. However, as net credit sales of wholesalers increased 9 percent between the two years, the loss ratios computed from these sales declined, as previously indicated.

Obviously the rate of loss for the year would have declined more substantially had the volume of recoveries not decreased from 1938. Several explanations are possible, but the larger volume of recoveries in 1938, when conditions were relatively adverse, may reflect a vigorous effort to clean up accounts which perhaps had been written off too hastily in more prosperous years.

Although showing an absolute decrease of almost 6 percent, wholesalers' recoveries in 1939 amounted to about 21 percent of gross bad-debt losses, only slightly

Table 1.—Proportion of Bad-Debt Losses to Credit Sales of Wholesalers, by Kinds of Business, With Summary of Related Information on Sales, Recoveries, and Number of Accounts, 1937 and 1938

Kind of business	Number of reports	Percent bad debts to credit sales		Net credit sales ('000's)		Total net sales ('000's)		Proportion of credit sales to total sales		Average gross loss per account written off		Proportion of recoveries to gross bad-debt losses		Average credit sales per account		Average number of accounts per firm		Percent of total accounts written off	
		1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938		
Automotive supplies.....	150	0.33	0.38	\$28,880	\$26,548	\$28,888	\$32,842	81.8	80.7	\$42	\$40	18.3	18.3	\$274	\$282	658	648	4.24	4.84
Chemicals (industrial).....	17	.16	.20	12,771	10,906	13,318	11,288	96.8	95.6	26	26	36.8	40.8	428	418	1,747	1,624	2.14	3.20
Paints and varnishes.....	28	.24	.27	18,701	18,464	21,687	20,328	91.7	90.9	87	88	60.8	62.9	357	351	1,927	1,878	8.71	8.82
Clothing and furnishings (except shoes).....	40	.32	.32	22,409	22,300	24,068	22,980	97.8	97.4	102	101	18.1	11.7	628	632	937	918	2.23	2.19
Shoes and other footwear.....	24	.34	.41	54,623	50,906	64,614	61,005	88.8	87.4	153	217	23.6	23.4	862	700	1,896	1,822	1.82	1.56
Coal.....	6	.16	.11	14,212	12,060	14,442	12,343	98.3	98.8	329	269	10.8	22.0	2,248	2,304	320	682	1.51	1.25
Drugs and drug sundries.....	60	.33	.30	92,727	80,827	90,872	85,040	95.7	95.8	217	211	22.5	23.5	1,187	1,192	1,214	1,183	2.37	2.42
Without liquor department.....	51	.28	.31	65,689	53,442	68,422	60,068	96.0	96.0	162	128	24.5	27.7	1,123	1,120	1,137	1,106	2.21	2.41
With liquor department.....	16	.44	.46	27,038	27,385	22,450	25,000	98.0	98.4	55	83	19.2	18.5	1,222	1,393	1,476	1,299	2.42	8.25
Dry goods.....	198	.27	.31	118,340	101,787	110,488	104,851	97.3	97.2	127	127	26.7	27.4	800	618	1,833	1,839	1.81	1.77
Electrical goods.....	217	.24	.24	288,261	231,927	288,288	284,897	96.3	96.4	100	182	18.8	28.4	1,212	1,020	1,677	1,037	3.28	2.14
Farm products (consumer goods).....	80	.27	.28	30,496	38,333	48,072	45,050	93.8	94.0	48	55	8.4	8.0	791	618	821	827	3.70	4.06
Dairy and poultry products.....	14	.17	.14	14,191	16,904	15,237	18,893	93.1	93.8	38	31	6.4	7.0	894	1,014	1,120	1,120	4.21	5.10
Fresh fruits and vegetables.....	75	.34	.32	22,408	22,439	28,435	28,389	79.0	78.0	30	78	8.8	10.7	738	719	406	418	2.03	3.32
Furniture and home furnishings.....	82	.23	.23	30,330	22,571	40,204	32,408	97.8	97.5	135	110	13.5	20.1	888	802	1,059	1,041	2.01	2.00
Confectionery.....	20	.20	.20	4,088	3,771	5,843	5,443	70.0	68.4	30	30	13.7	8.7	308	267	670	658	4.08	4.22
Meats and meat products.....	50	.25	.25	47,210	45,438	58,728	51,878	87.6	87.6	107	110	11.8	11.3	1,708	1,687	431	431	4.80	4.80
Groceries and foods (except farm products).....	480	.30	.30	403,772	484,959	545,000	638,843	90.4	88.5	124	180	20.0	19.4	987	1,008	1,031	1,013	3.06	3.13
Full-line wholesale grocers.....	246	.37	.30	206,614	187,394	280,228	220,824	86.7	88.4	122	118	27.1	21.8	1,099	1,013	820	796	3.47	3.28
Voluntary-group wholesale grocers.....	119	.33	.39	185,781	198,799	204,638	204,071	91.3	92.1	174	180	20.2	18.4	1,016	1,021	1,348	1,564	2.89	2.83
Retailer-cooperative wholesale grocers.....	13	.05	.05	83,994	23,214	24,067	23,899	97.3	97.2	113	111	7.3	7.2	4,306	4,219	429	414	2.06	2.23
Specialty-line wholesale grocers.....	100	.29	.35	70,383	74,696	87,432	87,386	88.4	87.7	70	70	13.4	12.4	709	749	1,017	970	3.49	3.52
Beer.....	14	.50	.50	1,224	1,178	1,436	1,436	98.8	98.8	32	41	2.6	2.8	547	638	109	150	8.71	0.96
Wines and spirituous liquors.....	19	.47	.34	20,708	25,707	22,316	28,555	82.0	86.7	58	50	11.6	5.0	847	878	1,142	1,142	8.71	0.23
Hardware group.....	402	.39	.39	277,611	280,088	341,288	304,800	96.0	94.8	120	121	24.7	27.3	888	614	1,468	1,382	2.21	2.30
General hardware.....	132	.35	.42	178,383	102,620	183,600	170,307	96.0	95.8	130	161	28.0	20.0	609	542	2,380	2,271	2.14	2.30
Heavy hardware.....	29	.10	.20	19,437	14,580	15,688	15,010	97.8	97.0	81	87	36.0	22.5	628	401	1,200	1,281	1.54	1.58
Industrial supplies.....	153	.40	.39	83,854	60,087	68,368	72,624	96.0	96.1	102	78	17.4	27.1	473	628	1,146	1,443	2.28	2.33
Plumbing and heating supplies.....	89	.50	.54	49,137	30,865	41,238	48,068	96.0	91.0	207	206	21.7	32.1	779	677	717	680	2.83	2.01
Jewelry.....	30	.60	.71	18,481	10,841	16,671	17,455	93.6	96.6	185	240	26.0	18.8	243	277	2,117	2,491	8.63	2.80
Lumber and building materials.....	40	.34	.44	28,483	24,297	28,093	24,868	97.9	97.7	109	100	18.7	10.0	614	570	1,103	1,368	2.52	2.78
Machinery, equipment, and supplies, except electrical.....	45	.60	.66	24,099	22,596	26,246	23,592	96.0	96.8	124	143	14.6	21.4	492	481	704	744	3.26	3.16
Surgical equipment and supplies.....	33	.18	.08	8,900	0,274	7,801	6,892	88.4	89.7	33	27	65.2	78.0	223	289	976	937	2.80	2.96
Metals.....	26	.22	.20	24,387	17,620	24,450	18,022	96.9	99.5	138	140	13.2	14.8	749	670	1,030	1,445	1.89	1.30
Paper and its products.....	34	.45	.39	59,640	63,620	61,011	64,882	97.0	97.4	98	98	11.4	12.4	388	346	1,828	1,834	1.79	1.76
Petroleum.....	11	.18	.17	96,490	90,619	126,013	116,674	75.8	77.6	98	87	19.9	23.0	1,477	1,494	8,873	8,644	3.34	3.32
Tobacco and its products.....	120	.10	.23	91,000	90,121	116,753	118,849	78.0	77.8	80	82	14.7	12.4	560	543	1,892	1,324	4.11	6.34
Leather and shoe findings.....	11	.54	.37	1,844	1,828	1,911	1,955	97.0	97.0	58	48	18.1	27.1	804	371	558	668	3.48	6.00
Miscellaneous.....	87	.33	.20	00,582	06,781	64,043	60,277	94.1	94.1	20	20	14.1	10.9	341	204	3,108	3,183	5.02	4.30
Total.....	2,283	.31	.33	2,925,985	1,808,171	2,197,046	2,332,899	92.2	91.9	90	98	20.7	22.9	707	684	1,200	1,232	2.79	2.59

less than the proportion for 1938. As shown in table 1, recoveries for the various kinds of business indicate that the highest average proportions of recoveries to gross losses were recorded by wholesalers selling more durable goods, such as surgical equipment and supplies, and paints and varnishes. The lowest proportions of recoveries were averaged by wholesalers selling less durable goods, such as beer and farm products.

The bad-debt-loss ratios by kind of business in table 1 indicate that represented in the slight decrease in the general average for all reporting wholesalers are scattered trades revealing no change in their loss ratios, as well as a number with an increased percentage of loss between the 2 years. The table also reveals a fairly wide range from highs of 0.69 percent for wholesalers of machinery, equipment, and supplies, and 0.59

percent for plumbing and heating supplies, to lows of 0.16 percent for heavy hardware wholesalers and 0.05 percent for retailer-cooperative wholesale grocers. Although neither the average number of accounts per firm, nor the percent of total accounts written off had any direct relationship to the bad-debt percentages, these figures should be useful to the individual credit man for comparative purposes.

Manufacturers.—Net bad-debt losses of reporting manufacturers averaged 0.17 percent of their net credit sales in 1939, representing no change from the loss ratio of the previous year. Thus the average manufacturers' loss per dollar of credit sales was roughly half the loss averaged by reporting wholesalers. Gross losses for the sample of 1,493 manufacturers advanced from \$7,660,000 in 1938 to \$8,214,000 in 1939. This in-

Table 2.—Proportion of Bad-Debt Losses to Credit Sales of Manufacturers, by Industries, With Summary of Related Information on Sales, Recoveries, and Number of Accounts, 1939 and 1938

Industry	Number of reports	Percent bad-debt to credit sales		Net credit sales (\$000's)		Total net sales (\$000's)		Proportion of credit sales to total sales		Average gross loss per account written off		Proportion of recoveries to gross bad-debt losses		Average credit sales per account		Average number of accounts per firm		Percent of total accounts written off	
		1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938
Food and kindred products, total	274	0.14	0.12	\$1,250,888	\$1,149,817	\$1,344,873	\$1,274,210	90.8	90.2	878	368	11.2	14.9	\$1,162	\$1,120	2,810	2,729	2.24	2.48
Confectionery	168	.10	.11	228,237	218,396	240,608	232,377	94.8	94.4	55	60	18.2	16.8	487	487	2,768	2,083	1.94	2.00
Flour, cereals, and other grain-mill products	32	.20	.23	24,383	24,654	27,841	27,230	87.2	88.2	114	128	12.3	12.1	1,218	1,261	911	900	1.39	2.03
Meat packing	24	.13	.18	104,066	101,683	105,228	105,254	87.4	98.0	94	85	12.5	11.7	2,178	2,109	1,023	1,023	2.22	3.88
Dried meats	104	.06	.01	115,641	106,102	115,641	106,102	100.0	100.0	781	188	2.5	24.2	21,304	20,156	371	283	2.16	3.11
Milk products	20	.37	.17	76,821	74,242	87,268	80,001	91.2	93.0	113	97	14.4	22.5	1,087	1,700	2,900	2,000	4.78	4.10
Wine	19	.72	.03	12,248	12,823	18,113	18,488	94.3	93.1	144	173	7.2	5.7	1,071	1,043	607	834	5.79	4.81
Other food products	119	.15	.08	644,830	597,494	700,890	705,825	86.8	80.7	78	56	8.5	16.8	1,430	1,370	4,080	4,080	2.23	2.48
Textiles and their products, total	118	.17	.23	260,893	272,183	272,048	274,753	90.0	98.0	127	160	12.5	12.3	1,023	943	2,287	2,080	1.58	1.64
Clothing, men's, except hats	20	.20	.20	50,618	44,788	51,323	46,212	98.0	98.0	126	151	12.3	20.0	776	782	2,250	2,026	1.95	1.63
Clothing, women's, except millinery	30	.20	.22	20,124	18,214	20,180	18,387	98.0	98.0	92	112	11.8	13.4	414	408	2,430	2,276	1.34	1.32
Knit goods	15	.17	.22	28,006	24,911	28,323	23,700	98.0	98.0	108	124	17.0	13.7	801	738	2,810	2,810	1.62	1.33
Other textile products	67	.12	.20	171,147	144,233	172,804	146,014	90.0	98.0	142	208	11.0	7.8	1,487	1,323	2,010	1,886	1.40	1.38
Forest products, total	61	.27	.22	40,877	41,843	45,210	42,088	90.0	98.0	148	148	11.1	10.7	921	824	888	821	1.81	2.17
Sawmills	32	.27	.28	27,040	22,984	27,113	24,012	90.7	90.8	128	140	11.9	14.5	670	614	1,207	1,123	1.47	1.74
Lumber, timber, and other miscellaneous forest products	29	.28	.20	13,837	18,859	18,097	18,076	90.1	98.1	180	140	11.2	27.2	1,893	1,420	512	475	2.19	2.37
Paper and allied products, total	33	.12	.15	229,004	200,708	208,187	208,170	90.0	90.3	121	122	10.8	17.7	1,504	1,403	1,867	1,724	1.89	2.05
Paper: Writing, book, etc.	17	.18	.11	38,787	34,717	38,710	35,138	100.0	100.0	117	123	11.1	19.3	1,450	1,300	1,573	1,521	1.48	1.60
Wax paper	12	.16	.10	42,760	37,673	42,760	37,673	100.0	100.0	68	68	25.8	12.0	949	1,077	3,671	3,102	2.06	3.31
Paper boxes and other paper products	33	.11	.17	147,447	133,747	147,418	135,312	99.0	90.0	178	200	10.8	12.7	1,784	1,708	1,540	1,477	1.41	1.63
Printing, publishing, and allied industries	53	.42	.38	57,863	58,470	58,780	57,067	97.2	97.7	26	20	18.8	10.2	160	145	3,318	3,423	2.90	3.30
Chemicals and allied products, total	127	.31	.20	260,485	171,065	302,640	172,580	91.2	99.1	71	93	10.2	23.4	367	314	4,421	4,284	1.02	1.98
Pharmaceuticals and proprietary medicines	28	.24	.30	28,056	25,120	38,850	35,252	90.6	90.0	46	44	28.6	30.3	100	181	7,383	6,020	1.33	1.55
Paints and varnishes	62	.57	.45	66,127	49,245	56,486	40,521	67.0	97.2	127	108	16.0	28.2	458	422	1,090	1,848	2.40	2.49
Other chemical products	37	.20	.22	106,302	96,700	107,304	97,786	100.0	100.0	52	49	21.1	18.5	450	372	4,111	3,379	2.17	2.10
Petroleum products	19	.24	.21	422,337	425,002	492,740	468,632	92.5	91.8	66	86	18.7	17.8	588	607	96,794	36,926	2.05	2.05
Rubber products	13	.11	.24	19,321	15,870	16,029	16,029	90.0	90.1	109	164	12.8	12.6	1,111	1,337	1,304	1,304	1.65	1.81
Leather and its products, total	78	.16	.18	158,686	133,263	158,085	125,280	98.4	98.8	283	281	9.1	8.1	1,368	1,778	1,417	961	1.49	1.29
Boots and shoes	24	.17	.18	64,364	60,171	66,003	62,080	90.0	90.0	213	240	8.4	8.4	1,880	1,803	1,610	1,201	1.62	.94
Leather: Tanned, curried, and finished	52	.15	.16	78,090	64,558	78,204	64,505	90.0	98.0	451	431	9.7	10.8	5,400	4,616	438	434	1.08	2.23
Other leather products	21	.17	.18	11,112	8,020	11,210	8,228	99.0	98.9	77	72	22.7	37.4	340	312	1,433	1,316	1.06	1.00
Stone, clay, and glass products, total	65	.26	.20	112,968	94,042	118,644	95,846	90.4	99.7	272	210	12.3	10.0	1,832	2,752	934	871	1.03	2.02
Manufacturing glassware (bottles, shades, etc.)	10	.21	.22	11,063	8,830	11,129	8,806	90.0	90.0	79	111	6.4	6.0	784	674	1,445	1,211	1.15	2.00
Other stone and glass products	62	.26	.10	102,045	87,250	107,515	87,040	90.0	99.1	242	242	12.8	17.5	2,320	2,080	787	785	1.00	2.00
Iron and steel and their products, total	147	.08	.08	374,872	388,808	377,084	386,631	90.2	90.6	100	162	10.0	10.2	1,087	1,316	1,004	1,404	.80	.09
Hardware	14	.18	.12	27,842	24,861	27,584	24,088	99.0	90.0	163	181	10.4	13.9	270	243	2,204	1,88	.88	.07
Stoves, ranges, steam heating appliances	29	.25	.28	24,032	23,830	24,032	24,032	99.0	99.0	127	162	20.0	28.1	784	737	1,638	1,477	1.78	1.01
Other iron and steel products	111	.07	.00	320,218	390,277	328,012	341,473	90.1	90.6	220	182	17.6	33.8	1,002	1,546	1,810	1,802	.73	.86
Nonferrous metals and their products, total	58	.16	.10	199,117	120,393	171,402	135,626	92.8	90.1	179	179	17.3	10.4	1,421	1,166	1,860	1,781	1.02	1.19
Jewelry and jewelry supplies	28	.16	.08	54,762	44,541	66,161	57,856	83.0	77.7	209	192	27.7	73.1	1,590	1,354	1,222	1,180	1.34	1.05
Other nonferrous metals	30	.16	.13	104,355	75,852	104,241	77,771	90.0	90.6	253	182	9.0	8.6	1,540	1,163	2,648	2,278	.88	.85
Machinery, not including transportation equipment, total	200	.10	.20	680,284	507,745	671,901	576,794	98.3	98.4	310	340	11.4	13.0	2,032	1,856	1,641	1,530	1.23	1.49
Electrical machinery, apparatus, and supplies	90	.00	.12	403,363	390,009	402,700	397,422	98.0	98.1	270	301	17.0	21.0	2,551	2,372	1,974	1,927	1.04	1.10
Other machinery, apparatus, and supplies	110	.20	.16	206,921	117,740	209,192	179,372	98.0	98.1	380	384	7.7	8.4	1,574	1,288	1,368	1,287	1.67	1.84
Motor-vehicle parts	37	.18	.13	90,610	48,000	60,028	42,140	99.8	99.8	127	81	0.3	12.3	1,780	1,428	883	809	1.84	2.26
Miscellaneous industries	64	.19	.16	116,408	166,724	117,343	107,448	90.3	90.3	101	70	14.8	16.6	831	758	2,180	2,121	1.74	1.78
Total	1,493	.17	.17	4,076,905	3,826,004	4,407,124	4,047,816	90.4	90.0	100	84	14.4	17.2	1,030	910	2,088	2,000	2.04	2.13

crease of 7.2 percent was far in excess of the one-half of 1 percent rise in the gross charge-off reported by wholesalers.

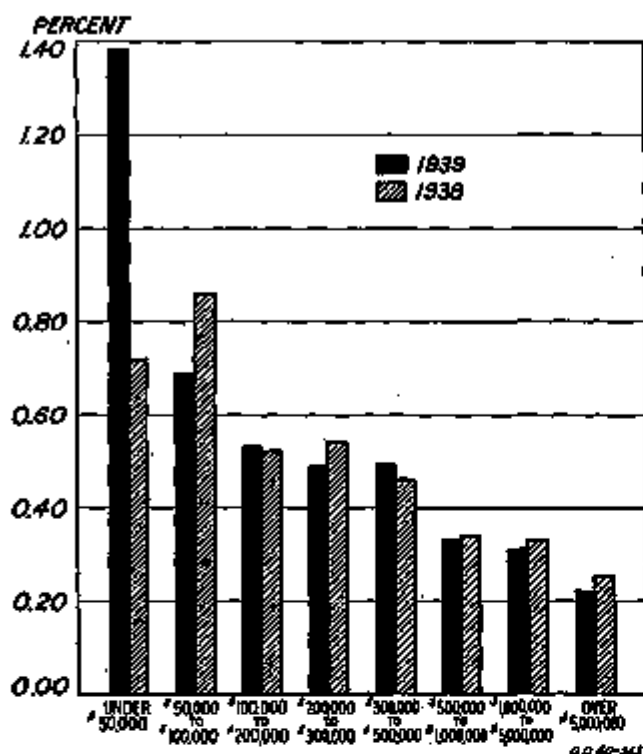


Figure 6.—Bad-Debt Loss Percentages of Wholesalers by Sales Size Groups.

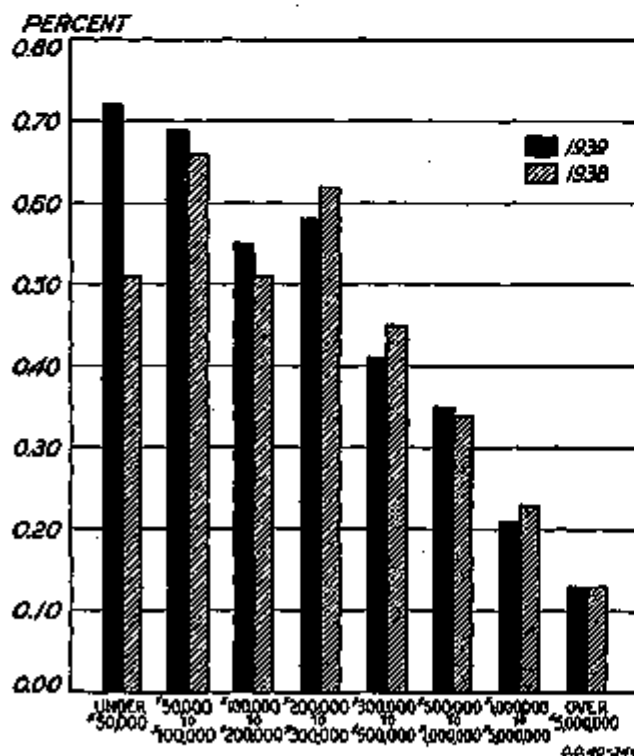


Figure 7.—Bad-Debt Loss Percentages of Manufacturers by Sales Size Groups.

In addition to the relatively large percentage increase in manufacturers' gross losses, their recoveries on accounts previously charged off were down 10.2 per-

cent from \$1,318,000 in 1938 to \$1,183,000 in 1939, a percentage decline which also exceeded the 5.8 percent drop in wholesalers' recoveries over the same period. As shown in table 2, manufacturers' recoveries in proportion to gross losses averaged 17.2 percent in 1938 and 14.4 percent in 1939, or between 5 and 6 percentage points below the proportion of wholesalers' recoveries to gross losses in the same years.

Deducting recoveries from gross losses gives net bad-debt losses of reporting manufacturers totaling \$6,343,000 in 1938 and \$7,030,000 in 1939, a rise of almost 11 percent. The 12 percent increase in manufacturers' net credit sales, however, served to hold the loss ratio for 1939 to the previous year's figure.

It may be seen from table 2 that, while the average bad-debt-loss ratio for all reporting manufacturers remained unchanged in the past 2 years, loss percentages in many of the individual industries showed considerable change, with increases in some lines balancing decreases in others. The arrangement of broad industry groups according to losses sustained brings out no definite pattern with respect to durable and non-durable goods or other classifications of industry. The iron and steel industry was lowest, with losses of less than one-tenth of 1 percent, followed by the nonferrous metals, food, paper, and motor-vehicle parts industries. Highest losses were found in the printing and publishing, chemicals, and forest-products industries, which averaged losses of three-tenths of 1 percent, or more.

Including the subgroups, liquor manufacturers experienced the lowest relative loss in both 1939 and 1938. This may be due to the fact that many of their customers—distributors in those States governed by laws compelling wholesale sales for cash only—readily convert goods into cash which can be passed on to the producer, or it may result solely from the large size of their average account. Wineries, on the other hand, had the highest bad-debt-loss ratios in both years.

Credit managers may find helpful, for purposes of individual comparison, the figures in table 2 showing, by industries, the proportion of credit sales, average number of accounts per firm and proportion written off, average gross loss per account written off, and proportion of recoveries to gross losses.

Recoveries made by manufacturing jewelers are noted as extremely high, averaging over the 2-year period about 50 percent of the amounts written off as bad, while the average manufacturer of boots and shoes recovered only 4½ percent of the gross charge-off over the 2-year period. As previously noted, the average recovery for all manufacturers was 14.4 percent of the gross charge-off in 1939 and 17.2 percent in 1938.

Analysis of Losses by Size Factors.

Wholesalers.—Figure 6 and table 3 reveal a characteristic inverse relationship between bad debts and size of business, with the largest losses being incurred by

wholesalers with the smallest sales volume, and the ratios declining progressively with each lower sales-volume group. A probable governing factor is that the larger companies have more complete credit departments and are in the most advantageous position to select as well as supervise their credit risks.

Figure 6 indicates that wholesalers in the lowest annual sales-volume classification, sales under \$50,000, almost doubled their average loss per dollar of credit sales last year, with the ratio for the group advancing from 0.72 percent in 1938 to 1.38 percent in 1939, the highest ratios recorded. Ratios for only a few kinds of business in this lower sales classification could be shown in table 3, but in the majority of them a sharp advance in the loss percentage is noted.

Two more of the eight size classifications, representing wholesale firms with annual sales of \$100,000-\$200,000 and \$300,000-\$500,000, averaged slightly higher losses in 1939. Elsewhere, moderate decreases are shown, except in the \$50,000-\$100,000 sales group, where the ratio dropped sharply from 0.86 percent in 1938 to 0.69 percent in 1939, in contrast with the much higher losses averaged by firms with sales under \$50,000. For both groups of firms with sales under \$100,000, results may be conditioned by the comparatively small size and limited distribution of the samples.

When bad-debt losses of wholesalers are grouped according to size of credit sales per account (fig. 8 and table 5) the resultant pattern is similar to that for the sales-size groups, as demonstrated in figure 6. Firms averaging \$250 or less per account reported the greatest loss, with the loss ratios declining for each successive increase in average size of account. All except the highest account classification, where the ratio remained unchanged at a point considerably below the general average for all wholesalers, showed reduced average losses from 1938 to 1939.

The diminution of bad-debt losses with increasing size of business and size of sales per account was further borne out by the cross classification of these two factors (see table 7). When analyzing each sales-volume size classification according to size-of-account groups, losses were generally reduced as the size factors increased in magnitude.

Manufacturers.—Bad-debt losses of manufacturers classified by sales-size groups in figure 7 and table 4 reveal the same inverse relationship between percentage of loss and sales volume as wholesale establishments. Decreasing loss ratios with each successive increase in sales volume is found to hold true in the principal industrial groups and subgroups in table 4, although in all cases deviations from the general trend are found.

Manufacturing firms in three groups representing annual sales up to \$200,000 averaged higher losses in 1939, with the relatively small group of firms having sales under \$50,000 showing the largest loss ratios and

the greatest increase in the ratio from 0.51 percent of credit sales in 1938 to 0.72 percent last year. A similar sharp advance was noted for the same sales-size group

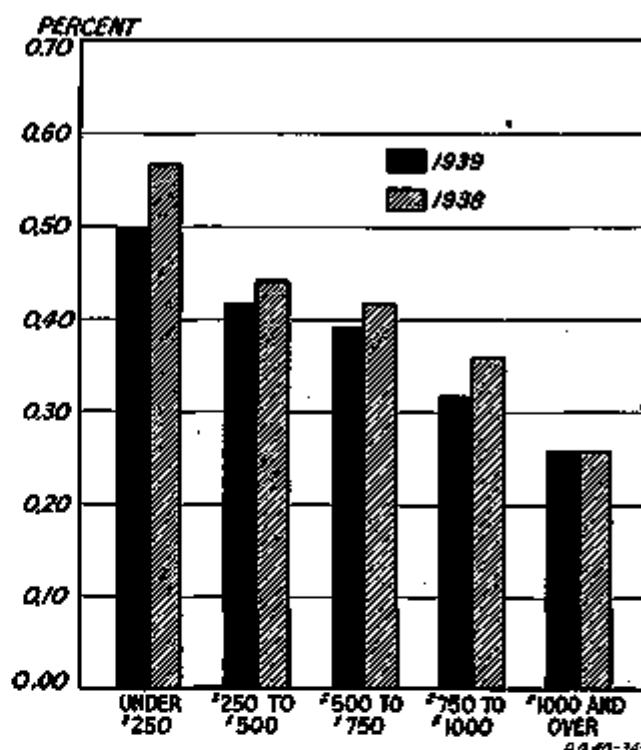


Figure 8.—Bad-Debt Loss Percentages of Wholesalers by Average Credit Sales per Account.

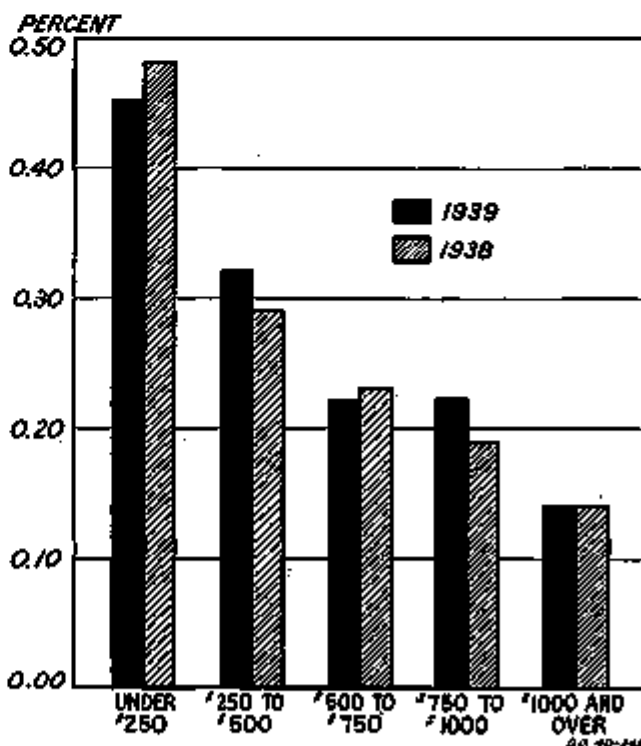


Figure 9.—Bad-Debt Loss Percentages of Manufacturers by Average Credit Sales per Account.

of wholesalers. One other group, including manufacturing firms with annual sales of \$500,000 to \$1,000,000, also increased their average loss slightly in 1939, leav-

ing three groups with moderately lower average-loss ratios for the year, and the largest firms, those having sales over \$5,000,000, with no change in their average-loss ratio.

Although the general-average loss percentage for manufacturers was much lower than that for wholesalers in 1939, it is noted, in comparing the 1939 ratios in figures 6 and 7, that manufacturers in the sales-volume groups from \$500,000 to \$1,000,000 and from \$100,000 to \$200,000 averaged a loss 2 cents higher per \$100 of credit sales in 1939 than that for the same size groups of wholesalers. Furthermore, comparison of the \$200,000-\$300,000 sales-volume groups discloses that the manufacturers lost 8 cents more than the wholesalers per \$100 of credit sales last year.

Analyzed according to average credit sales per account, as shown in figure 9 and table 6, loss ratios averaged by manufacturers range from high to low, following increased size of account. As in the comparison for wholesalers, shown in figure 8, firms in the highest account-size classification, which had the lowest average loss, disclosed no change in their ratio from 1938 to 1939. In other groups, however, manufacturers did not reveal the uniformly lower loss ratios shown by the account-size groups of wholesalers, with two of the remaining four groups of manufacturers averaging slightly higher losses in 1939.

In connection with the previous observation that, despite lower general-average losses for all reporting firms, some groups of manufacturers classified by annual sales volume averaged higher losses than corresponding groups of wholesalers, comparisons of identical groups of wholesalers and manufacturers in tables 5 and 6 show that all wholesalers in the size-of-account groups averaged higher losses than manufacturers in corresponding groups.

The arrangement of manufacturers' bad-debt losses in table 7 by size of credit sales per account under size-of-business classifications is a further illustration of the inverse relation of losses to size of account also noted in a similar analysis for wholesalers in that table. In each size-of-account classification it is also observed that there was a progressive tendency for losses to decrease from the small to the large firms. No doubt the underlying cause would be found in the more rigid credit supervision which can be established by firms of larger size.

Comparisons by Geographic Regions.

Owing to the general nation-wide scope of operations, as well as frequent inability to provide data classified by geographic area, reports of manufacturers are not analyzed by region in this study. A regional comparison of the loss experience of wholesalers is shown, however, in table 8.

Proportion of Accounts Written Off and Gross Loss per Account.

In an earlier section of this analysis, it was noted that wholesalers reported a fractional increase in average

number of accounts per firm last year, while manufacturers, who have double the average number of accounts reported by wholesalers, disclosed an increase of almost 5 percent from 1938 to 1939 in average number of accounts per firm. Increased credit sales in 1939, however, raised average credit sales on wholesalers' accounts from \$666 in 1938 to \$707 in 1939, with average sales on manufacturers' accounts advancing from \$949 to \$1,016 for the respective years.

Wholesalers.—As shown in table 1, all reporting wholesalers charged off an average of 2.79 percent of their total number of accounts in 1939, representing a decrease from 2.89 percent of total accounts in 1938. Perhaps conforming to slightly larger credit sales per account in 1939, the average gross loss on wholesalers' accounts written off last year was \$99, compared with \$98 for 1938.

Manufacturers.—Manufacturers similarly averaged a decrease in proportion of accounts written off from 2.13 percent of total accounts in 1938 to 2.04 percent in 1939. However, with about the same average increase in credit sales per account as was shown by wholesalers, manufacturers' average gross losses per account advanced to \$100 in 1939 from \$94 in the preceding year. The higher average gross loss per account reported by manufacturers reflects, of course, the fact that, despite a smaller proportion of accounts written off in 1939, manufacturers' aggregate gross losses gained more than 7 percent last year, whereas wholesalers' gross losses were up less than one-half of 1 percent.

Further data on percent of accounts written off and average gross loss per account by individual trades and industries will be found in tables 1 and 2. While average credit sales per account has been noted as an important controlling factor in bad-debt-loss measurement, percent of accounts written off and average gross loss per account may be regarded as significant elements for further study and comparison.

AGE ANALYSIS OF ACCOUNTS WRITTEN OFF

In previous sections of this report it has been noted that the changes in bad-debt-loss ratios from year to year may reflect many types of relative movement in the several factors which enter into their computation. As an example of what may occur with no change whatever in the absolute dollar amount of the gross charge-off from one year to the next, variation in the magnitude of recoveries, or a normally anticipated change in credit-sales volume, will produce entirely different loss ratios between the two years. Without citing further illustrations, it may also be said that there are a great many combinations arising from relative changes in the magnitude of sales, gross losses, and recoveries, which can produce identical loss ratios.

This points to the fact that comparisons of bad-debt-loss ratios, while representing generally accepted-rule-of-thumb guides for loss comparisons, are apt to be misleading unless each ratio carries with it a full explanation of its basic components. Individual business firms cannot safely compare their own bad-debt-loss results, expressed in standard ratio form, unless they have all of the supplemental facts expressing percentage change in credit sales, gross losses, and proportion of recoveries.

An additional element which is even more disturbing than those noted above with reference to standard bad-debt-loss measurement, is the factor of the composition of the total annual charge-off which, minus recoveries, is computed as a percent of the credit sales of the same year for determination of the loss ratio. The question is, What relation do accounts written off in a given year bear to the actual sales of that identical year? The assumption seems to have been that the relationship is precise, but the facts presented in this analysis do not contribute to that view. Rather, they disclose a fundamental weakness of loss-ratio computation, and indicate that such ratios are more an expression of practical convenience than a sound analytical method.

Briefly, the analysis for 1,890 wholesalers in figure 10 reveals that only 45.2 percent of their gross charge-off in 1939 can be attributed to the credit sales of that year, against which the loss ratio is computed. For 1938, 49.7 percent of wholesalers' gross losses arose from sales in the same year. Average figures for 1,319 manufacturers, also shown in figure 10, disclosed an even lower proportion of the charge-off, between 23 and 35 percent, which could be allocated in 1938 or 1939 to current credit sales.

The indication that wholesalers take more rapid action than manufacturers in the write-off of accounts probably may be attributed to conditions of greater relative mortality among their retail creditors. It should also be noted that the data for both wholesalers and manufacturers show that a larger proportion of the 1938 charge-off is attributed to sales of that same year than is found to be the case with the analysis of current- and prior-year distribution of the gross loss for 1939, despite the fact that there was some increase in the absolute amount of the gross write-off of both wholesalers and manufacturers in 1939. This may indicate that there was delayed action until 1939 in the charge-off of bad accounts acquired under the rising business conditions of 1937 and prior years, thus raising the proportion of the charge-off representing accounts more than 2 years old (i. e., accounts representing sales of 1937 and prior years) and lowering the proportion of the current-year (1939) charge-off.

Considering the factor of age of accounts charged off, as well as the other variables which form the basis of bad-debt-loss ratios, there is abundant evidence that these convenient loss indices are extremely

deceptive. To secure an accurate bad-debt-loss percentage of sales for a given year would require delay in computation until all accounts arising from sales of that year had either been collected or proved definitely to be uncollectible. This might mean that corrected loss ratios could not be computed for a matter of years, or until the last accounts were charged off and final

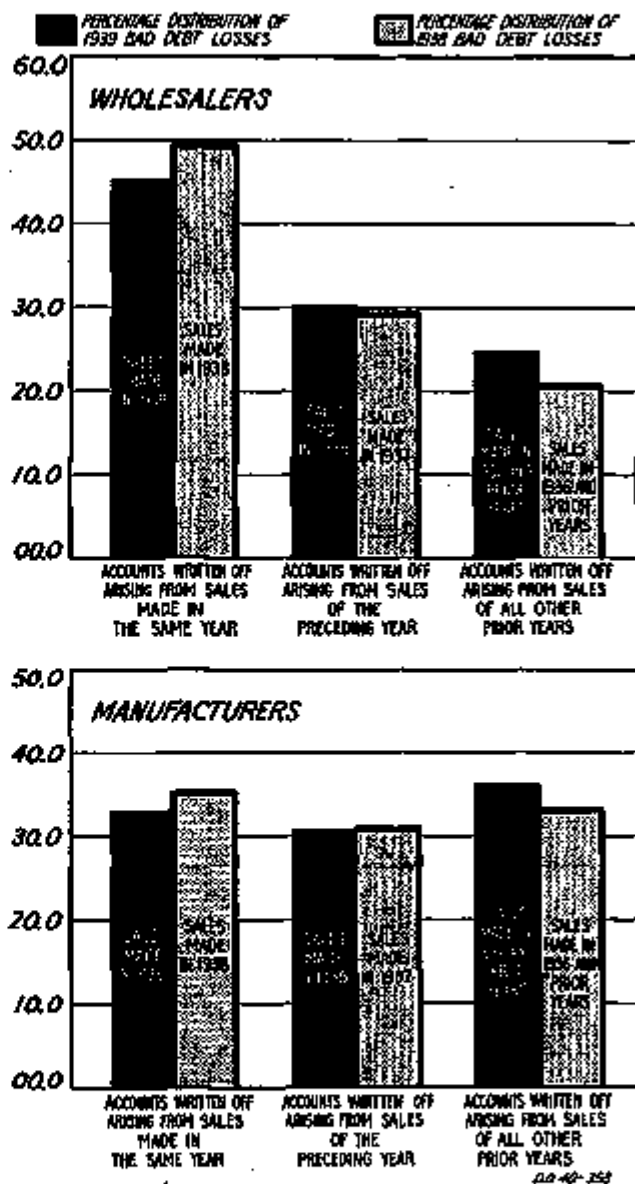


Figure 10.—Age Analysis of Accounts Written off by Wholesalers and Manufacturers, 1939 and 1938.

recoveries made on accounts which gradually worked out after a write-off.

While perhaps a practical device from the accounting standpoint, the present standard method of carrying forward recoveries and delayed account write-off for computation with unrelated current-sales and current-loss figures leads to the utmost confusion as to exactly what comparative values the consequent loss ratios may have. Granting that the availability of figures on the various elements which compose the loss

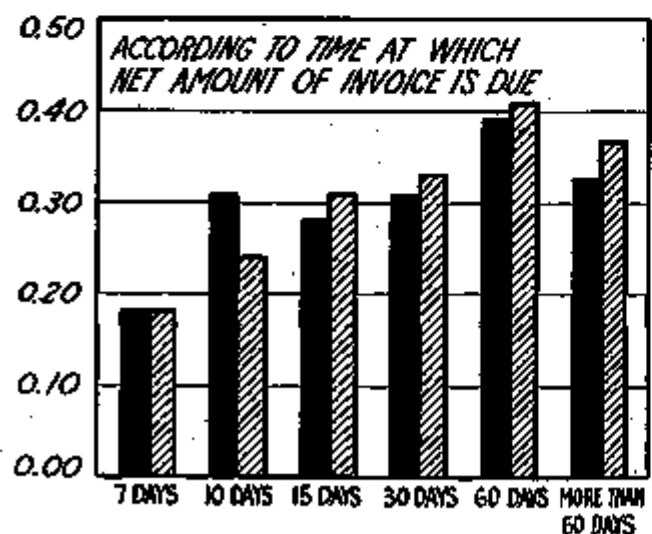
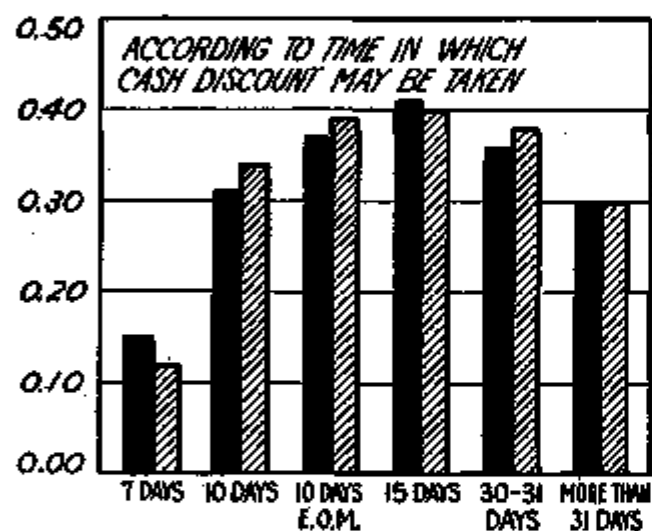
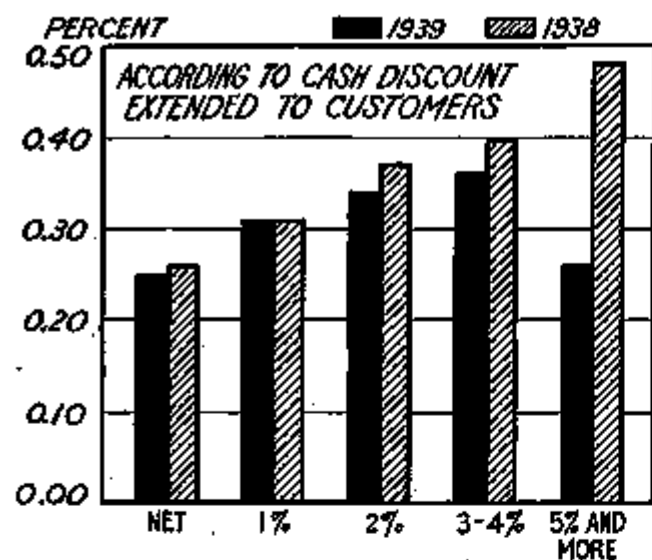


Figure 13.—Bad-Debt Loss Percentages of Wholesalers, Classified According to Credit-Term Factors.

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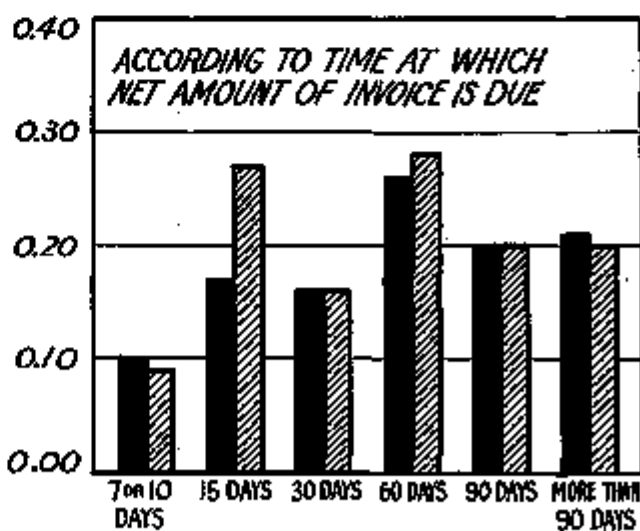
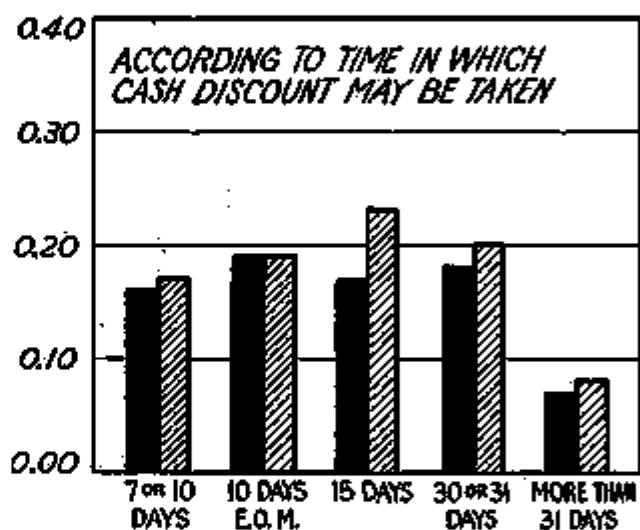
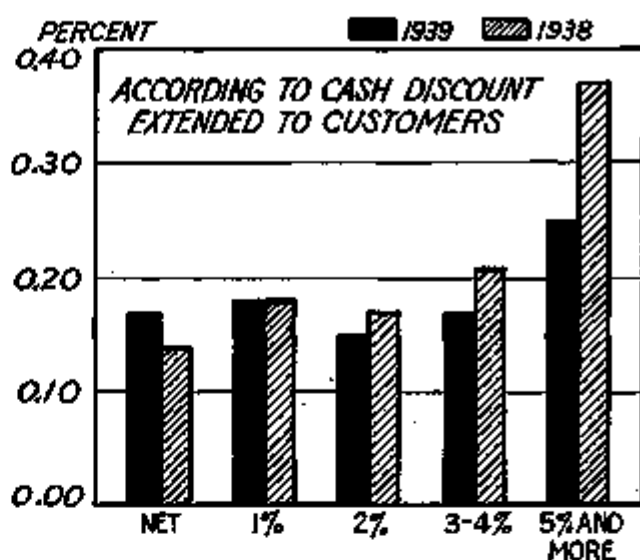


Figure 14.—Bad-Debt Loss Percentages of Manufacturers, Classified According to Credit-Term Factors.

Table 3.—Proportion of Bad-Debt Losses to Credit Sales of Wholesalers, by Kinds of Business, Classified by Size of Establishments, 1939 and 1938

Kind of business	Total of all groups			Size groups (based on total sales for 1939)											
	Number of reports	1939	1938	\$5,000,000 and over			\$1,000,000 to \$5,000,000			\$500,000 to \$1,000,000			\$300,000 to \$500,000		
				Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938
Automotive supplies	180	0.63	0.68				4	0.80	0.70	12	0.46	0.63	23	0.53	0.79
Chemicals (industrial)	17	.16	.20				5	.12	.19	3	(1)	(1)	2	(1)	.28
Paints and varnishes	28	.34	.27	1	(1)	(1)				1	(1)	(1)	6	.21	.73
Clothing and furnishings (except shoes)	40	.32	.23	1	(1)	(1)				2	(1)	(1)	4	.84	
Shoes and other footwear	34	.23	.41	1	(1)	(1)				7	.42	.63	2	(1)	(1)
Coal	0	.18	.11							1	(1)	(1)	2	(1)	(1)
Drugs and drug sundries	50	.33	.35	3	(1)	(1)				11	.30	.20	8	.19	.22
Without liquor department	61	.28	.31	3	(1)	(1)				9	.28	.19	0	.10	.20
With liquor department	16	.44	.40							2	(1)	(1)	2	(1)	(1)
Dry goods	108	.27	.31	1	(1)	(1)				25	.43	.45	18	.55	.64
Electrical goods	217	.24	.24	4	0.11	0.12				18	.28	.26	20	.04	.64
Farm products (consumer goods)	80	.17	.25	1	(1)	(1)				17	.22	.28	14	.47	.64
Dairy and poultry products	14	.17	.14	1	(1)	(1)				6	.35	.35			
Fresh fruits and vegetables	75	.24	.23							12	.16	.24	12	.50	.60
Furniture and house furnishings	62	.23	.33	1	(1)	(1)				12	.30	.43	8	.58	.41
Cookstoves	20	.28	.40							2	(1)	(1)	4	.35	.32
Meats and meat products	55	.28	.25	1	(1)	(1)				19	.40	.34	6	.19	.72
Groceries and foods (except farm products)	488	.30	.33	15	.24	.34				115	.35	.30	100	.49	.28
Full-line wholesale grocers	245	.32	.30	4	.31	.28				61	.26	.34	65	.33	.24
Voluntary-group wholesale grocers	119	.23	.29	3	.32	.43				44	.36	.24	20	.52	.47
Retailer-cooperative wholesale grocers	12	.05	.05							4	.18	.13			
Specialty-line wholesale grocers	103	.29	.35	3	(1)	(1)				9	.40	.29	15	1.37	.42
Beer	14	.80	.56										1	(1)	(1)
Wines and spirituous liquors	19	.47	.34	1	(1)	(1)				0	.26	.39	3	.67	.29
Hardware group	402	.39	.39	6	.84	.27				86	.50	.40	60	.59	.09
General hardware	132	.35	.41	6	.20	.28				41	.36	.45	21	.62	.77
Heavy hardware	29	.15	.20							4	.36	.48	6	.37	.84
Industrial supplies	163	.40	.29	2	(1)	(1)				30	.19	.25	25	.35	.30
Plumbing and heating supplies	88	.56	.64	2	(1)	(1)				10	.26	.54	16	.75	.73
Jewelry	38	.50	.71	1	(1)	(1)				4	.69	.82	8	.60	.53
Lumber and building materials	40	.55	.44							9	.27	.35	7	.52	.80
Machinery, equipment, and supplies, except electrical	65	.60	.65				4	1.00	1.25	9	.47	.77	13	.72	.52
Surgical equipment and supplies	32	.15	.06				1	(1)	(1)	2	(1)	(1)	2	(1)	(1)
Metals	20	.22	.30	1	(1)	(1)				3	(1)	(1)	4	.32	.55
Paper and its products	84	.40	.49	3	(1)	(1)				22	.25	.26	14	.29	.22
Petroleum	11	.19	.17	4	.16	.14				1	(1)	(1)	1	(1)	(1)
Tobacco and its products	120	.19	.23	3	(1)	(1)				35	.17	.21	23	.24	.32
Leather and shoe findings	11	.54	.37							1	(1)	(1)			
Miscellaneous	37	.33	.30	4	.33	.43				5	.22	.25	8	.56	.45
Total	2,283	.31	.33	55	.32	.25	451	.31	.33	434	.28	.34	380	.49	.46

Kind of business	Size groups (based on total sales for 1939)											
	\$300,000 to \$500,000			\$100,000 to \$300,000			\$50,000 to \$100,000			Under \$50,000		
	Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938
Automotive supplies	17	0.54	0.74	43	0.51	0.50	39	0.60	0.74	19	0.91	0.91
Chemicals (industrial)	0	.36	.17				1	(1)	(1)			
Paints and varnishes	3	(1)	(1)	6	1.29	.63	3	1.34	2.44	3	(1)	(1)
Clothing and furnishings (except shoes)	6	1.42	1.15	12	.99	.71	8	.90	.62	1	(1)	(1)
Shoes and other footwear	6	.56	.95	0	.63	.72	3	(1)	(1)			
Coal												
Drugs and drug sundries	4	.23	.63	6	.19	.43	1	(1)	(1)			
Without liquor department	4	.23	.03	6	.19	.43	1	(1)	(1)			
With liquor department												
Dry goods	5	.41	.48	18	.50	.63	7	.47	.65	2	(1)	(1)
Electrical goods	14	.45	.60	37	.50	.60	9	.38	.57	8	(1)	(1)
Farm products (consumer goods)	19	.63	.41	16	.87	.74	13	.76	.61	2	(1)	(1)
Dairy and poultry products	2	(1)	(1)	1	(1)	(1)						
Fresh fruits and vegetables	16	.59	.44	15	.21	.33	12	.75	.61	2	(1)	(1)
Furniture and house furnishings	6	.19	.44	0	.62	.64	4	.38	.30	3	(1)	(1)
Cookstoves				3	.70	.78	4	.81	.37	1	(1)	(1)
Meats and meat products	5	.80	.78	6	1.25	1.22	3	(1)	(1)	2	(1)	(1)
Groceries and foods (except farm products)	48	.87	.47	42	.44	.64	23	.97	1.40	12	1.02	.74
Full-line wholesale grocers	34	.35	.37	16	.24	.34	6	1.02	.95	5	1.48	1.64
Voluntary-group wholesale grocers	1	(1)	(1)									
Retailer-cooperative wholesale grocers	1	(1)	(1)									
Specialty-line wholesale grocers	16	.44	.72	28	.61	.72	10	.84	1.05	7	1.70	.61
Beer	2	(1)	(1)	6	.75	.53	3	(1)	(1)	2	(1)	(1)
Wines and spirituous liquors				1	(1)	(1)	2	(1)	(1)			
Hardware group	62	.68	.68	55	.68	.55	31	.48	.31	11	.60	.38
General hardware	9	.63	1.04	3	(1)	(1)	3	(1)	(1)	1	(1)	(1)
Heavy hardware	5	.25	.32	4	.63	.18	2	(1)	(1)	2	(1)	(1)
Industrial supplies	29	.56	.60	28	.33	.38	15	.43	.69	7	.58	.11
Plumbing and heating supplies	13	1.13	.60	19	1.12	.63	10	.46	1.21	1	(1)	(1)
Jewelry	3	(1)	(1)	10	1.11	.80	3	(1)	(1)	2	(1)	(1)
Lumber and building materials	5	.60	1.71	6	.53	.40	1	(1)	(1)			
Machinery, equipment, and supplies, except electrical	6	.69	.36	17	.34	.31	8	.49	.37	8	2.14	.6
Surgical equipment and supplies	3	(1)	(1)	17	.27	.10	6	.68	.24	1	(1)	(1)
Metals	2	(1)	(1)	3	(1)	(1)						
Paper and its products	13	.31	.33	9	.26	.16	8	1.41	1.08	4	.35	.50
Petroleum				1	(1)	(1)	2	(1)	(1)	4	.95	.68
Tobacco and its products	11	.16	.40	11	.13	.10	2	(1)	(1)	1	(1)	(1)
Leather and shoe findings	2	(1)	(1)	4	(1)	(1)	4	.62	.60	1	(1)	(1)
Miscellaneous	13	.50	.31	3	.33	.43	6	.97	1.29	6	4.50	1.67
Total	263	.40	.54	243	.52	.52	166	.68	.86	87	1.23	.72

1 Bad-debt-loss percentages not shown for samples of fewer than four firms.

2 Multiple-unit firms which could not give break-downs by houses are included in grand totals but not in size-group classifications.

competition. From the latter angle, higher cash discounts with the objective of promoting sales represent increasing liberality, and not conservatism in the interest of promoting collections. Consequently, with terms of payment in some measure expressing an appraisal of credit risk in the interest of collections on the one hand and a sales-promotion device on the other, it would be virtually impossible to array all combinations of credit terms, from conservative to liberal, to indicate the precise importance of each of the three components within each combination of terms.

Recognizing these complications and the fact that this study seeks only to determine any possible connection between losses and credit terms, the obvious alternative is to array average losses from high to low by groups of firms having uniform terms to see if there is any consistent tendency in the terms as the losses progressively increase. This arrangement for wholesalers is shown in figure 11 and for manufacturers

in figure 12, based upon data presented in tables 13 and 14.

Neither of these presentations provides sweepingly conclusive evidence of a direct and progressive relationship between liberality in one or more of the terms components and the range of losses from low to high brackets. To a noticeable extent, however, and particularly in the data for wholesalers, the highest loss groups suggest a long net period as a basic factor, and possibly liberal time permitted to discount. Conservative terms are also noted at the low loss range for wholesalers, but fairly liberal terms are found in the corresponding loss range of the data for manufacturers, for whom the relation between terms and losses is by no means so well defined. Possibly a clearer case for high losses resulting from liberal terms, and vice versa, could be shown in this type of analysis by securing larger samples than are given at present for many of the groups of both wholesalers and manufacturers.

Table 4.—Proportion of Bad-Debt Losses to Credit Sales of Manufacturers, by Industries, Classified by Size of Establishment, 1939 and 1938

Industry	Total of all groups			Size groups (based on total sales for 1939)											
	Number of reports	1939	1938	\$5,000,000 and over			\$1,000,000 to \$5,000,000			\$500,000 to \$1,000,000			\$300,000 to \$500,000		
				Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938
Food and kindred products, total.....	373	0.14	0.12	35	0.11	0.08	91	0.20	0.21	89	0.40	0.33	44	0.69	0.50
Confectionery.....	188	.19	.21	9	.13	.15	25	.18	.17	30	.20	.45	23	.45	.35
Flour, cereals, other grain-mill products.....	23	.20	.23				12	.14	.37	3	(1)	(1)	3	(1)	(1)
Meat packing.....	24	.13	.13	7	.11	.13	11	.15	.13	6	.21	.28	1	(1)	(1)
Distilled liquors.....	10	.05	.01	4	.03	.01	3	(1)	(1)	1	(1)	(1)	1	(1)	(1)
Malt liquors.....	20	.27	.17	3	(1)	(1)	6	.03	.35	2	(1)	(1)	2	(1)	(1)
Wine.....	19	.72	.03				4	.25	.64	3	(1)	(1)	3	(1)	(1)
Other food products.....	116	.12	.05	15	.10	.06	31	.20	.19	20	.14	.14	12	.41	.28
Textiles and their products, total.....	118	.17	.23	17	.11	.20	43	.22	.23	21	.27	.37	13	.52	.61
Clothing, men's, except hosiery.....	29	.30	.30	3	(1)	(1)	16	.33	.39	6	.37	.37			
Clothing, women's, except millinery.....	36	.28	.32				6	.22	.28	3	.25	.36			
Knit goods.....	12	.17	.22	2	(1)	(1)	6	.20	.28				4	.10	.23
Other textile products.....	57	.12	.20	12	.10	.21	14	.10	.15	7	.15	.17	9	.07	.06
Forest products, total.....	61	.27	.22	2	(1)	(1)	10	.13	.20	15	.28	.41	11	.73	.52
Furniture.....	24	.22	.20				7	.14	.24	13	.24	.52	0	.40	.21
Lumber, timber, and other miscellaneous forest products.....	28	.28	.26	3	(1)	(1)	2	(1)	(1)	5	.17	.18	5	1.06	.64
Paper and allied products, total.....	82	.13	.15	13	.11	.12	23	.12	.20	10	.16	.29	10	.22	.26
Paper, Writing, book, etc.....	17	.10	.11	3	(1)	(1)	2	(1)	(1)	5	.05	.10	1	(1)	(1)
Wax paper.....	12	.15	.15	3	(1)	(1)	4	.17	.17	3	(1)	(1)	1	(1)	(1)
Paper boxes and other paper products.....	53	.11	.17	7	.11	.12	17	.09	.15	8	.22	.47	3	.23	.74
Printing, publishing, and allied industries.....	52	.42	.35				7	.43	.35	30	.44	.34	7	.34	.15
Chemicals and allied products, total.....	127	.31	.20	7	.13	.19	27	.26	.22	27	.68	.62	19	.51	.54
Pharmaceuticals and proprietary medicines.....	38	.24	.30	2	(1)	(1)	3	.20	.27	4	.20	.47	2	(1)	(1)
Paints and varnishes.....	63	.57	.45	1	(1)	(1)	10	.51	.36	14	.62	.65	11	.50	.56
Other chemical products.....	37	.20	.22	4	.18	.15	13	.20	.30	7	.08	.20	6	.65	.47
Petroleum products.....	18	.24	.21	10	.24	.23	6	.15	.04	1	(1)	(1)			
Rubber products.....	13	.14	.25				7	.14	.12	2	(1)	(1)	1	(1)	(1)
Leather and its products, total.....	79	.10	.18	7	.08	.09	23	.22	.26	23	.29	.25	4	.43	1.03
Boots and shoes.....	24	.17	.15	2	(1)	(1)	9	.28	.34	11	.24	.30	1	(1)	(1)
Leather, tanned, curried, and finished.....	33	.15	.19	5	.18	.10	11	.13	.28	8	.30	.17	3	(1)	(1)
Other leather products.....	21	.17	.19				3	(1)	(1)	4	.11	.27			
Stone, clay, and glass products, total.....	63	.25	.20	1	(1)	(1)	21	.30	.24	13	.30	.20	6	.50	.63
Illuminating glassware (globes, shades, reflectors, etc.).....	10	.21	.32				4	.10	.28	2	(1)	(1)	1	(1)	(1)
Other stone, clay, and glass products.....	62	.25	.18	1	(1)	(1)	17	.29	.34	11	.28	.21	7	.54	.52
Iron and steel and their products, total.....	147	.09	.08	15	.06	.03	52	.14	.13	31	.15	.29	20	.10	.13
Hardware.....	14	.15	.12	1	(1)	(1)	6	.22	.23	3	(1)	(1)	1	(1)	(1)
Stoves, ranges, steam heating apparatus.....	22	.25	.28	1	(1)	(1)	5	.21	.25	2	(1)	(1)	2	(1)	(1)
Other iron and steel products.....	111	.07	.08	13	.08	.03	28	.11	.07	14	.12	.33	17	.15	.12
Nonferrous metals and their products, total.....	58	.16	.10	7	.12	.03	13	.19	.25	14	.22	.33	8	.29	.12
Jewelry and jewelry supplies.....	25	.18	.09	2	(1)	(1)	7	.17	.12	8	.27	.31	4	.44	.12
Other nonferrous metals.....	30	.15	.15	5	.13	.06	6	.20	.35	9	.19	.33	1	(1)	(1)
Machinery, not including transportation equipment, total.....	200	.19	.24	18	.16	.20	63	.22	.33	30	.24	.24	30	.35	.38
Electrical machinery, apparatus and supplies.....	66	.08	.12	10	.06	.10	22	.18	.17	16	.35	.19	12	.13	.22
Other machinery, apparatus, and supplies.....	130	.28	.51	8	.51	.43	31	.25	.55	23	.15	.27	18	.56	.56
Motor-vehicle parts.....	27	.13	.13	2	(1)	(1)	10	.12	.15	6	.40	.19	4	.16	.24
Miscellaneous industries.....	64	.15	.15	4	.12	.04	20	.17	.16	9	.51	.54	13	.30	.45
Total.....	1,493	.17	.17	141	.13	.13	481	.21	.23	297	.35	.34	189	.41	.45

1 Bad-debt-loss percentages not shown for samples of fewer than four firms.

Table 4.—Proportion of Bad-Debt Losses to Credit Sales of Manufacturers, by Industries, Classified by Size of Establishment, 1937 and 1938—Continued

Industry	Size groups (based on total sales of 1937)											
	\$200,000 to \$300,000			\$100,000 to \$200,000			\$50,000 to \$100,000			Under \$50,000		
	Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938
Food and kindred products, total.....	38	4.71	0.61	49	0.42	0.64	26	0.59	0.70	19	0.43	0.29
Canned foods.....	18	.38	.20	30	.59	.36	17	.87	.70	16	.48	.24
Flour, cereals, other grain-mill products, meat packing, distilled liquors, malt liquors, wine.....	3	(1)	(1)	1	(1)	(1)	1	(1)	(1)			
Other food products.....	4	1.65	.87	2	(1)	(1)	3	(1)	(1)	1	(1)	(1)
Textiles and their products, total.....	12	2.58	1.00	19	.48	.52	6	1.96	1.24	3	(1)	(1)
Clothing, men's, except hats, clothing, women's, except millinery, knit goods.....	4	.47	.55	9	.25	.42	2	(1)	(1)	1	(1)	(1)
Other textile products.....	1	.32	.70	4	.57	.80	2	(1)	(1)			
Forest products, total.....	8	.60	.38	3	.25	.35	8	(1)	(1)	1	(1)	(1)
Furniture.....	7	.64	.88	6	1.92	1.46	4	1.23	1.11	1	(1)	(1)
Lumber, timber, and other miscellaneous forest products.....	4	.99	.82	2	(1)	(1)	1	(1)	(1)	1	(1)	(1)
Paper and allied products, total.....	3	(1)	(1)	6	1.79	1.43	3	(1)	(1)	1	(1)	(1)
Paper: Writing, book, etc., waste paper.....	1	(1)	(1)	1	(1)	(1)	2	(1)	(1)	2	(1)	(1)
Paper boxes, and other paper products, printing, publishing, and allied industries, chemicals and allied products, total.....	4	.15	.07	4	.10	.17	6	.84	.66	4	.16	1.03
Pharmaceuticals and proprietary medicines.....	10	.82	.45	12	.30	.65	2	(1)	(1)	8	2.28	.94
Paints and varnishes.....	2	(1)	(1)	4	.75	.75	3	(1)	(1)	3	(1)	(1)
Other chemical products.....	1	.73	.28	10	.68	.73	2	(1)	(1)	2	(1)	(1)
Petroleum products.....	1	(1)	(1)	1	(1)	(1)	1	(1)	(1)	1	(1)	(1)
Rubber products.....	1	(1)	(1)	1	(1)	(1)	1	(1)	(1)	1	(1)	(1)
Leather and its products, total.....	7	.10	.24	7	.31	.25	6	.78	.65	1	(1)	(1)
Boots and shoes, leather: Tanned, curried, and finished, other leather products.....	4	.10	.17	3	(1)	(1)	1	(1)	(1)	1	(1)	(1)
Stone, clay, and glass products, total.....	4	(1)	(1)	6	.29	.28	5	.77	.89	1	(1)	(1)
Manufacturing glassware (plates, shades, reflectors, etc.).....	1	(1)	(1)	2	(1)	(1)	2	(1)	(1)	2	(1)	(1)
Other stone, clay, and glass products.....	3	.01	.24	7	1.14	.50	2	(1)	(1)	1	(1)	(1)
Iron and steel and their products, total.....	12	.60	.62	13	.69	.20	9	.28	.23	2	.20	2.39
Hardware.....	4	.43	.71	2	(1)	(1)	1	(1)	(1)	1	(1)	(1)
Stoves, ranges, steam heating apparatus, other iron and steel products.....	2	.63	.41	10	.28	.17	5	.22	.24	1	(1)	(1)
Nonferrous metals and their products, total.....	4	.52	.64	9	.75	.67	4	.42	.34	1	(1)	(1)
Jewelry and jewelry supplies, other nonferrous metals.....	2	(1)	(1)	2	(1)	(1)	3	(1)	(1)	1	(1)	(1)
Machinery, not including transportation equipment, total.....	11	.76	.62	28	.63	.38	4	.88	1.99	7	1.38	.85
Electrical machinery, apparatus and supplies.....	3	(1)	(1)	11	.40	.18	2	(1)	(1)	4	2.49	.81
Other machinery, apparatus, and supplies.....	8	.53	.64	15	.66	.43	4	.83	2.93	3	(1)	(1)
Motor-vehicle parts.....	6	.45	1.18	3	(1)	(1)	2	(1)	(1)	1	(1)	(1)
Miscellaneous industries.....	3	(1)	(1)	6	.68	.68	5	.44	.30	3	.16	.43
Total.....	128	.58	.62	177	.55	.51	87	.69	.54	65	.72	.61

1 Bad-debt-loss percentages not shown for samples of fewer than four firms.

Analysis of Losses by Individual Terms Factors.

An analysis of bad-debt losses by groups of wholesalers and manufacturers classified according to each of the three elements composing terms is presented in figures 13 and 14, which are based on the data in table 15. The two sections of both charts which classify losses according to cash discount and according to period for payment of net amount of invoice reveal, with some imperfections, a tendency for larger losses to follow higher cash discounts and longer terms.

As terms arrangements quote both discount and net period, it is evident that both factors cannot be dominant. Presumably, therefore, because of similarity in the scaling of losses in the classifications for each factor, the charts disclose that when one of these two factors is liberal, the other is also inclined to be. However, in the center sections of the charts, presenting losses classified according to time in which discount may be taken, the groups do not follow the loss trend visible in the upper and lower sections. Consequently, it may rea-

sonably be assumed that this particular element can be more readily eliminated as a factor controlling losses than either of the two remaining components of terms.

In the wholesale data, there is indication that up to a certain point increased losses reflect progressive liberality in all three factors, but this is scarcely evident in the data for manufacturers. Beyond a 15-day period allowed for discount, it would appear that the more liberal limits of this element are associated with relatively conservative cash discounts and are probably fairly close to the final net periods of individual terms arrangements. Supplementary information on this problem is presented in tables 16 and 17, where terms are listed under each industry and trade according to prevalence of use.

Importance of Credit Management.

In the main, the relation of credit terms to bad-debt losses indicates that, although liberality in terms is a

definite factor contributing to losses, it is not an uncontrollable factor. If credit terms were dictated wholly by the desire of the customer or in the expedient interest of sales promotion, much more clear-cut evidence of progressively higher losses with each successive move away from conservatism would undoubtedly be shown. In contrast to this, the less precise relationship found in actual business is unquestionably the result of credit

management and the constant supervision of accounts to make credit terms conform to appraisal of risk. The possibilities inherent in credit management are such that the wide scale of terms arrangements need not produce any more than the irreducible minimum of losses at one extreme or the other, for each of the multitude of terms arrangements could be adapted to its appropriate use.

Table 5.—Proportion of Bad-Debt Losses to Credit Sales of Wholesalers, by Kinds of Business, Classified According to Average Credit Sales Per Account, 1929 and 1938

Kind of business	Total of all groups			Average credit sales per account (based on 1938 figures)											
				Firms averaging \$1,000 or more per account		Firms averaging from \$750 to \$1,000 per account		Firms averaging from \$500 to \$750 per account		Firms averaging from \$250 to \$500 per account		Firms averaging under \$250 per account			
	Number of reports	1929	1938	Number of reports	1929	1938	Number of reports	1929	1938	Number of reports	1929	1938	Number of reports	1929	1938
Automotive supplies.....	186	0.58	0.88	4	0.89	0.27	6	0.18	0.44	17	0.55	0.83	04	0.87	0.60
Chemicals (industrial).....	17	.18	.20	2	(0)	(0)	1	(0)	(0)	3	(0)	(0)	4	.20	.30
Paints and varnishes.....	28	.24	.27	1	(0)	(0)	1	(0)	(0)	3	(0)	(0)	10	.20	.47
Clothing and furnishings, except shoes.....	48	.32	.53	5	.11	.19	1	(0)	(0)	8	.90	1.06	12	.20	.30
Shoes and other footwear.....	34	.35	.41	8	.28	.28	2	(0)	(0)	5	.46	.64	12	.38	.31
Coal.....	9	.18	.11	8	.18	.13	1	(0)	(0)	1	(0)	(0)	7	.30	.89
Drugs and drug sundries.....	66	.35	.34	40	.34	.46	14	.28	.20	1	(0)	(0)	7	.30	.89
Without liquor department.....	51	.28	.31	30	.20	.34	11	.24	.20	1	(0)	(0)	6	.41	.52
With liquor department.....	15	.44	.45	10	.44	.61	3	(0)	(0)	2	(0)	(0)	1	(0)	(0)
Dry goods.....	183	.27	.31	31	.12	.29	11	.57	.41	18	.19	.22	31	.31	.29
Electrical goods.....	317	.24	.24	60	.20	.26	27	.30	.43	19	.38	.46	21	.50	.44
Farm products (consumer goods).....	89	.27	.25	35	.16	.13	17	.61	.62	10	.35	.39	11	.24	.23
Dairy and poultry products.....	14	.17	.14	8	.08	.09	3	(0)	(0)	3	(0)	(0)	2	(0)	(0)
Fresh fruits and vegetables.....	75	.34	.32	29	.22	.16	17	.31	.62	15	.43	.46	9	.53	.30
Furniture and household furnishings.....	53	.38	.33	18	.24	.28	4	.39	.58	13	.48	.31	9	.51	.30
Confectionery.....	26	.30	.40	1	(0)	(0)	3	(0)	(0)	1	(0)	(0)	6	.70	.63
Meats and meat products.....	56	.25	.25	35	.22	.33	6	.48	.58	8	.46	.28	6	.40	.71
Groceries and foods (except farm products).....	480	.30	.33	240	.26	.38	78	.28	.26	50	.45	.62	68	.44	.63
Full-line wholesale grocers.....	245	.33	.30	118	.38	.27	62	.26	.26	34	.51	.41	32	.37	.45
Voluntary-group wholesale grocers.....	170	.33	.35	88	.28	.28	15	.31	.30	13	.52	.66	8	.68	.85
Retailer-cooperative wholesale grocers.....	13	.06	.05	12	.06	.06	1	(0)	(0)	1	(0)	(0)	1	(0)	(0)
Specialty-line wholesale grocers.....	108	.29	.35	27	.30	.25	8	.62	.87	23	.30	.40	21	.51	.38
Beer.....	14	.50	.50	1	(0)	(0)	3	(0)	(0)	6	.31	.78	5	.40	.23
Wines and spirituous liquors.....	10	.47	.44	7	.46	.65	2	(0)	(0)	3	(0)	(0)	4	.58	.58
Hardware group.....	492	.39	.39	73	.41	.24	53	.24	.26	95	.51	.40	105	.38	.37
General hardware.....	132	.26	.41	13	.31	.28	19	.21	.35	33	.64	.56	48	.30	.27
Heavy hardware.....	20	.16	.20	3	(0)	(0)	3	(0)	(0)	7	.26	.35	6	.22	.19
Industrial supplies.....	163	.40	.20	34	.51	.20	13	.60	.30	29	.16	.34	42	.36	.44
Plumbing and heating supplies.....	88	.58	.54	38	.63	.47	19	.53	.65	17	.60	.51	13	.80	.48
Jewelry.....	30	.50	.71	0	.34	.88	6	.65	.11	8	1.20	1.00	5	.53	.47
Lumber and building materials.....	40	.33	.44	18	.38	.48	6	.34	.40	4	.07	.25	6	.31	.50
Machinery, equipment, and supplies, except electrical.....	65	.68	.85	17	.78	.99	7	.07	.52	5	.23	.61	20	.50	.87
Surgical equipment and supplies.....	20	.18	.06	2	(0)	(0)	3	(0)	(0)	2	(0)	(0)	9	.10	.31
Metals.....	30	.22	.30	3	.34	.60	3	(0)	(0)	5	.31	.18	2	(0)	(0)
Paper and its products.....	84	.40	.30	18	.28	.48	9	.40	.29	11	.18	.12	17	.70	.44
Petroleum.....	11	.18	.17	4	.16	.14	2	(0)	(0)	2	(0)	(0)	3	(0)	(0)
Tobacco and its products.....	128	.19	.23	34	.10	.17	23	.18	.27	26	.16	.22	23	.32	.28
Leather and shoe findings.....	11	.54	.87	1	(0)	(0)	1	(0)	(0)	4	1.18	.38	5	.58	.91
Miscellaneous.....	57	.38	.50	11	.36	.40	3	(0)	(0)	7	.27	.39	12	.40	.26
Total.....	3,283	.31	.33	879	.26	.28	288	.32	.28	348	.30	.42	464	.42	.44

1. Bad-debt-loss percentages not shown for samples of fewer than four firms.

Table 6.—Proportion of Bad-Debt Losses to Credit Sales of Manufacturers, by Industries, Classified According to Average Credit Sales per Account, 1939 and 1938

Industry	Total of all groups			Average credit sales per account (based on 1939 figures)											
				Firms averaging \$1,000 or more per account		Firms averaging from \$750 to \$1,000 per account		Firms averaging from \$500 to \$750 per account		Firms averaging from \$250 to \$500 per account		Firms averaging under \$250 per account			
	Number of reports	1939	1938	Number of reports	1939	1938	1939	1938	1939	1938	1939	1938	1939	1938	1939
Food and kindred products, total.....	373	0.14	0.13	125	0.12	0.09	20	0.10	0.20	23	0.24	0.21	66	0.23	0.27
Confectionery.....	168	.10	.21	21	.11	.17	12	.17	.30	19	.16	.14	41	.21	.51
Flour, cereals and other grain-mill products.....	23	.20	.23	11	.13	.20	3	()	()	4	.03	.33	2	()	()
Meat packing.....	24	.12	.13	22	.13	.13	3	()	()						
Distilled liquors.....	30	.05	.01	16	.04	.01									
Malt liquors.....	30	.27	.17	18	.25	.16									
Wine.....	10	.72	.93	10	.97	.85									
Other food products.....	110	.12	.08	37	.10	.07	11	.12	.11	12	.17	.16	33	.31	.24
Textiles and their products, total.....	118	.17	.23	42	.08	.19	8	.21	.35	18	.28	.22	24	.69	.41
Clothing, men's, except hats.....	20	.30	.29	10	.14	.22	8	()	()	3	()	()	2	.57	.48
Clothing, women's, except millinery.....	20	.29	.32	4	.24	.30	2	()	()	3	()	()	5	.36	.51
Knit goods.....	12	.17	.22	3	()	()							3	()	()
Other textile products.....	57	.12	.20	25	.07	.10	1	()	()	10	.23	.21	8	.31	.16
Forest products, total.....	61	.27	.32	23	.14	.22	8	.40	.53	9	.40	.44	15	.38	.49
Furniture.....	33	.27	.30	11	.23	.28	4	.27	.46	6	.30	.49	10	.23	.50
Lumber, timber, and other miscellaneous forest products.....	28	.28	.30	13	.06	.18	4	.40	.61	3	()	()	5	1.00	.43
Paper and allied products, total.....	92	.12	.15	41	.10	.13	7	.09	.11	3	.06	()	10	.35	.38
Paper: Writing, book, etc.....	17	.10	.11	5	.00	.09				3	()	()	6	.70	.32
Wax paper.....	12	.16	.15	5	.16	.00	5	.07	.08				2	()	()
Paper boxes and other paper products.....	53	.11	.17	31	.10	.15	2	()	()	5	.06	.14	7	.32	.21
Printing, publishing, and allied industries.....	52	.43	.48	16	.44	.47	3	()	()	6	.28	.29	10	.35	.19
Chemicals and allied products.....	127	.31	.30	31	.15	.23	7	.34	.10	18	.31	.44	36	.30	.36
Pharmaceuticals and proprietary medicines.....	58	.24	.30	2	()	()				2	()	()	3	()	()
Paints and varnishes.....	62	.57	.45	15	.34	.44	4	.31	.12	12	1.10	.02	15	.37	.55
Other chemical products.....	37	.20	.22	12	.18	.21	3	()	()	4	.13	.12	8	.17	.24
Petroleum products.....	19	.24	.21	8	.30	.15				4	.16	.10	3	()	()
Rubber products.....	12	.14	.25	6	.18	.14	3	()	()	1	()	()	2	()	()
Leather and its products, total.....	78	.10	.18	33	.14	.15	3	()	()	1	()	()	5	.21	.27
Boots and shoes.....	24	.17	.18	16	.11	.12	2	()	()	1	()	()	1	()	()
Leather: Tanned, curried, and finished.....	33	.15	.19	31	.18	.19	1	()	()						
Other leather products.....	21	.17	.18	4	.19	.02							7	.16	.20
Stone, clay, and glass products, total.....	63	.25	.30	38	.24	.19	6	.32	.24	5	.38	.36	9	.28	.21
Illuminating gasware (globes, shades, reflectors, etc.).....	10	.21	.22	3	()	()	1	()	()	1	()	()	3	()	()
Other stone, clay, and glass products.....	53	.25	.19	35	.24	.18	5	.57	.31	4	.29	.34	6	.56	.19
Iron and steel and their products, total.....	147	.04	.06	83	.07	.07	12	.07	.10	21	.19	.09	19	.43	.34
Hardware.....	14	.16	.12	4	.12	.11	2	()	()	4	.44	.21	3	()	()
Stoves, ranges, steam heating apparatus.....	23	.25	.25	9	.19	.19	2	()	()	2	()	()	3	.74	.56
Other iron and steel products.....	111	.07	.08	69	.08	.05	8	.06	.01	15	.16	.07	11	.35	.22
Nonferrous metals and their products, total.....	56	.12	.10	30	.13	.09	7	.17	.20	6	.78	.43	8	.45	.12
Jewelry and jewelry supplies.....	28	.16	.06	14	.12	.03	3	()	()	3	()	()	5	.63	.14
Other nonferrous metals.....	30	.15	.12	16	.14	.11	4	.18	.28	3	()	()	3	()	()
Machinery, not including transportation equipment, total.....	200	.19	.24	104	.18	.23	38	.36	.43	30	.22	.28	27	.27	.15
Electrical machinery, apparatus, and supplies.....	90	.09	.12	45	.05	.10	8	.21	.34	15	.27	.34	14	.19	.06
Other machinery, apparatus, and supplies.....	110	.29	.31	59	.43	.55	30	.33	.47	15	.16	.23	13	.38	.30
Motor-vehicle parts.....	37	.13	.13	17	.04	.00	4	.43	.34	0	.45	.44	5	.54	.39
Miscellaneous industries.....	64	.18	.15	19	.03	.09	5	.40	.13	6	.31	.42	14	.37	.45
Total.....	1,492	.17	.17	636	.14	.14	121	.22	.19	174	.23	.28	256	.32	.28

¹ Bad-debt-loss percentages not shown for samples of fewer than four firms.

Table 7.—Proportion of Bad-Debt Losses to Credit Sales, 1939 and 1938

Sales size groups	Average credit sales per account											
	Under \$250			\$250 to \$500			\$500 to \$750			\$750 to \$1,000		
	Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938	Number of reports	1939	1938
WHOLESALE												
Under \$50,000.....	28	1.48	0.75	10	1.64	0.70	7	0.57	1.05	3	()	()
\$50,000 to \$100,000.....	99	.84	.99	59	.66	.82	10	.31	.48	7	0.38	0.59
\$100,000 to \$250,000.....	107	.37	.32	114	.43	.43	63	.56	.52	31	.40	.46
\$250,000 to \$500,000.....	31	.62	.55	63	.40	.48	37	.03	.04	32	.38	.48
\$500,000 to \$1,000,000.....	63	.62	.74	73	.42	.34	63	.42	.47	70	.41	.34
\$1,000,000 to \$5,000,000.....	42	.42	.46	74	.34	.34	54	.31	.42	89	.32	.32
\$5,000,000 to \$25,000,000.....	36	.37	.51	58	.33	.40	54	.33	.37	65	.34	.40
\$25,000,000 and over.....	3	()	()	2	()	()	5	.36	.43	7	.30	.38
MANUFACTURERS												
Under \$50,000.....	32	.38	.78	11	.61	.11	8	.28	.28	2	()	()
\$50,000 to \$100,000.....	44	.74	.78	23	.67	.39	4	.17	.17	4	.70	.16
\$100,000 to \$250,000.....	94	.45	.43	47	.25	.24	27	.35	.38	13	.42	.32
\$250,000 to \$500,000.....	34	.69	.80	34	.70	.62	21	.20	.52	6	1.06	1.20
\$500,000 to \$1,000,000.....	62	.41	.20	33	.36	.28	35	.51	.30	26	.53	.32
\$1,000,000 to \$5,000,000.....	47	.43	.48	57	.37	.39	40	.28	.29	34	.33	.39
\$5,000,000 to \$25,000,000.....	25	.42	.51	54	.28	.22	40	.20	.22	49	.20	.20
\$25,000,000 and over.....	5	.54	.24	8	.31	.28	10	.19	.20	7	.13	.19

¹ Bad-debt-loss percentages not shown for samples of fewer than 4 firms.

Table 8.—Bad-Debt-Loss Percentages of Wholesalers, by Geographic Regions, 1937 and 1938

Total regions	Number of firms	Percent bad debts to credit sales	
		1937	1938
New England.....	110	0.28	0.26
Middle Atlantic.....	563	0.30	0.31
East North Central.....	463	0.21	0.27
West North Central.....	230	0.28	0.28
South Atlantic.....	229	0.37	0.39
East South Central.....	100	0.35	0.38
West South Central.....	148	0.30	0.30
Mountain.....	92	0.42	0.50
Pacific.....	317	0.28	0.34

Table 9.—Age Analysis of Accounts Written Off by Wholesalers, by Kinds of Business, 1939 and 1938

Kind of business	Number of reports	Percentage distribution of 1939 gross write-off according to years in which sales were made			Percentage distribution of 1938 gross write-off according to years in which sales were made		
		1939	1938	1937 and prior years	1938	1937	1936 and prior years
Automotive supplies.....	194	48.2	30.0	17.2	47.1	35.4	17.5
Chemicals.....	13	55.8	34.7	7.5	42.9	48.3	8.8
Paints and varnishes.....	26	36.1	24.4	39.5	43.2	62.9	23.9
Clothing and furnishings, except shoes.....	35	83.2	33.8	10.0	65.8	28.6	5.0
Shoes and other footwear.....	28	69.0	34.4	6.0	80.9	36.1	3.0
Coal.....	9	0.1	04.0	38.4	18.0	20.5	55.5
Drugs and drug sundries without liquor department.....	47	51.7	20.0	18.7	48.0	26.3	22.7
Drugs and drug sundries with liquor department.....	13	45.6	27.8	26.7	37.0	35.1	28.0
Dry goods.....	82	32.9	30.2	17.0	48.5	29.1	12.2
Electrical goods.....	195	44.8	28.7	26.5	60.4	40.1	19.5
Dairy and poultry products.....	12	51.7	13.3	4.6	83.1	80.1	8.8
Fresh fruits and vegetables.....	64	51.3	28.8	19.9	47.8	29.8	24.0
Furniture and house furnishings.....	50	40.0	30.8	29.2	62.0	51.0	18.4
Confectionery.....	17	60.0	19.3	20.7	62.6	18.0	19.5
Meats and meat products.....	53	47.2	36.1	25.7	62.2	38.2	12.4
Full-line wholesale grocers.....	206	54.4	38.9	10.7	67.0	23.7	18.7
Voluntary-group wholesale grocers.....	104	48.6	22.2	29.2	53.3	21.8	25.0
Retailer-cooperative wholesale grocers.....	9	83.7	13.3	3.0	68.1	31.5	5.4
Specialty-line wholesale grocers.....	98	62.4	30.0	17.6	46.3	30.4	14.4
Beer.....	13	23.7	23.3	54.0	38.2	25.7	36.7
Wines and spirituous liquors.....	16	43.2	45.1	11.7	67.3	27.3	5.5
General hardware.....	171	42.5	31.1	26.4	37.8	34.8	27.7
Heavy hardware.....	21	39.0	51.6	11.9	30.5	60.5	10.0
Industrial supplies.....	137	32.1	34.3	33.0	43.8	34.8	27.7
Plumbing and heating supplies.....	53	37.9	34.8	27.4	48.9	20.8	24.6
Jewelry.....	29	12.0	60.8	27.2	7.8	40.8	45.4
Lumber and building materials.....	37	39.4	40.5	17.1	35.0	43.8	30.3
Machinery, equipment, and supplies.....	58	19.0	30.7	50.7	27.7	14.8	57.5
Surgical equipment and supplies.....	25	34.8	13.9	55.6	68.9	16.7	15.4
Metals.....	18	61.8	17.4	18.5	34.4	40.6	25.1
Paper and its products.....	70	23.7	48.2	27.1	34.2	45.2	20.8
Petroleum.....	8	71.7	17.0	10.4	78.2	18.0	18.8
Tobacco and its products.....	102	54.3	32.1	14.0	60.7	31.8	11.6
Leather and shoe findings.....	9	52.0	17.1	29.9	42.3	19.4	38.8
Miscellaneous.....	35	31.8	28.2	40.3	78.5	14.3	12.2
Total.....	1,890	45.2	30.2	24.6	49.7	20.5	20.8

Table 10.—Age Analysis of Accounts Written Off by Manufacturers, by Industries, 1939 and 1938

Industry	Number of reports	Percentage distribution of 1939 gross write-off according to years in which sales were made			Percentage distribution of 1938 gross write-off according to years in which sales were made		
		1939	1938	1937 and prior years	1938	1937	1936 and prior years
Confectionery.....	148	54.0	34.0	12.0	67.8	34.3	8.0
Flour, cereals, and other grain-mill products.....	21	20.0	50.5	29.5	28.5	47.3	24.3
Other food products.....	96	62.1	24.9	13.0	66.8	32.9	11.0
Ment packing.....	22	74.0	12.9	13.1	70.3	14.1	8.7
Distilled liquor.....	10	24.0	40.2	34.9	37.0	37.5	24.8
Malt liquor.....	17	38.5	30.7	10.8	68.0	17.6	23.8
Wine.....	18	23.5	40.8	37.2	38.8	30.3	35.6
Clothing, men's, except hats.....	24	65.8	30.7	3.7	47.0	42.7	6.7
Clothing, women's, except millinery.....	10	70.6	23.0	6.4	75.5	25.1	4.4
Knit goods.....	11	60.3	38.4	11.3	60.5	29.0	8.6
Other textile products.....	40	44.7	40.4	14.0	45.1	34.4	30.8
Furniture.....	28	22.4	43.8	33.8	30.3	33.8	30.0
Lumber, timber, and other miscellaneous forest products.....	24	30.9	31.0	27.0	41.5	44.0	12.0
Paper: Writing, book, etc.....	17	34.3	46.8	19.3	28.5	58.7	14.7
Wax paper.....	12	43.1	22.2	24.7	65.0	21.5	22.5
Paper boxes and other paper products.....	49	40.6	43.7	15.8	39.0	47.2	12.9
Printing, publishing, and allied industries.....	47	50.3	35.9	13.0	47.4	31.5	31.1
Pharmaceuticals, etc.: Drugs.....	25	28.7	41.3	30.0	30.4	37.3	26.3
Paints and varnishes.....	57	27.9	27.8	24.2	37.1	35.8	27.3
Other chemical products.....	88	38.3	41.3	20.4	46.4	48.4	10.2
Petroleum products.....	15	8.0	34.6	56.4	70.1	49.4	40.4
Rubber products.....	12	45.0	38.9	8.1	33.5	12.7	62.8
Boots and shoes.....	18	49.8	38.8	3.9	70.8	28.0	1.5
Leather: Tanned, curried, and finished.....	26	43.3	34.1	12.6	45.1	68.2	1.6
Other leather products.....	18	40.9	40.4	12.8	68.0	27.0	4.4
Stone, clay, and glass products.....	48	27.0	32.0	40.4	18.5	28.8	52.7
Manufacturing glassware (glass shades, reflectors, etc.).....	9	53.3	20.5	21.2	60.5	20.4	18.1
Hardware.....	14	28.5	27.0	44.5	22.8	28.7	49.3
Stoves and ranges.....	20	23.8	44.2	32.0	31.1	39.1	29.8
Other iron and steel products.....	102	17.8	23.9	58.5	18.5	32.7	48.8
Jewelry.....	27	41.0	28.2	30.8	18.5	48.7	30.8
Other nonferrous metals and their products.....	27	16.9	10.1	67.9	25.0	42.8	32.2
Electrical machinery, apparatus, and supplies.....	70	24.5	28.1	47.4	36.2	25.1	40.7
Other machinery: Foundry products.....	97	8.2	17.0	72.9	7.7	12.6	70.7
Motor-vehicle parts.....	30	28.0	35.0	36.9	35.8	41.7	22.5
Miscellaneous.....	47	25.0	41.6	31.0	34.6	38.7	24.6
Total.....	1,319	33.0	30.7	36.3	26.3	31.3	33.4

Table 11.—Age Analysis of Accounts Written Off by Wholesalers and Manufacturers, by Size of Establishment, 1939 and 1938

Sales size group	Number of reports	Percentage distribution of 1939 gross write-off according to years in which sales were made			Percentage distribution of 1938 gross write-off according to years in which sales were made		
		1939	1938	1937 and prior years	1938	1937	1936 and prior years
WHOLESALE							
Under \$50,000.....	74	34.4	18.4	48.2	47.7	37.4	34.9
\$50,000 to \$100,000.....	160	32.8	31.4	35.8	36.0	32.6	31.4
\$100,000 to \$200,000.....	291	37.8	29.2	33.0	45.7	35.8	38.9
\$200,000 to \$500,000.....	324	35.7	35.7	27.6	48.4	34.5	32.1
\$500,000 to \$1,000,000.....	334	37.6	30.5	21.9	42.8	27.1	39.9
\$1,000,000 to \$5,000,000.....	385	44.5	30.0	25.5	47.5	28.8	22.7
\$5,000,000 to \$10,000,000.....	388	45.0	29.8	25.2	40.8	31.1	22.6
\$10,000,000 and over.....	25	64.6	29.9	15.5	68.0	25.9	6.1
MANUFACTURERS							
Under \$50,000.....	49	35.0	24.5	28.5	35.8	24.9	33.3
\$50,000 to \$100,000.....	76	37.2	32.3	42.5	31.4	32.9	39.3
\$100,000 to \$200,000.....	102	42.8	24.6	32.6	40.0	32.3	30.8
\$200,000 to \$500,000.....	113	38.5	41.2	20.3	34.2	29.6	37.3
\$500,000 to \$1,000,000.....	164	34.8	32.2	30.2	37.7	30.2	30.1
\$1,000,000 to \$5,000,000.....	200	34.0	35.8	30.4	37.2	34.3	26.7
\$5,000,000 to \$10,000,000.....	229	37.0	33.8	29.2	38.5	22.4	28.1
\$10,000,000 and over.....	113	39.1	25.8	45.1	31.5	28.9	29.5

Table 12.—Age Analysis of Accounts Written Off by Wholesalers and Manufacturers, by Average Credit Sales per Account, 1939 and 1938

Average credit sales per account	Number of reports	Percentage distribution of 1939 gross write-off according to years in which sales were made			Percentage distribution of 1938 gross write-off according to years in which sales were made		
		1939	1938	1937 and prior years	1938	1937	1936 and prior years
WHOLESALES							
Under \$250.....	379	44.8	20.8	34.4	48.3	30.1	21.6
\$250 to \$500.....	393	35.8	37.7	26.5	41.0	34.1	24.9
\$500 to \$750.....	301	30.3	35.3	31.4	32.1	25.7	21.2
\$750 to \$1,000.....	243	44.6	27.4	28.1	45.0	27.0	24.8
\$1,000 and over.....	474	40.0	29.2	34.3	34.0	29.4	19.8
MANUFACTURERS							
Under \$250.....	274	42.0	34.8	22.6	41.2	33.4	20.4
\$250 to \$500.....	280	35.0	38.1	26.9	39.1	31.5	21.5
\$500 to \$750.....	159	28.3	34.4	38.3	27.9	42.5	34.6
\$750 to \$1,000.....	189	39.0	32.0	28.4	35.5	29.8	15.5
\$1,000 and over.....	590	30.5	20.8	42.8	32.8	26.6	40.8

Table 13.—Wholesalers' Bad-Debt Losses Analyzed According to Credit Terms, 1939 and 1938

Credit terms	Number of reports	Percent bad debts to credit sales	
		1939	1938
2 percent 10 days, net 30 days	477	0.29	0.35
2 percent 10 days a. o. m., net 30 days	161	.46	.44
Net, 30 days	143	.31	.24
Net, 7 days	147	.17	.18

Table 13.—Wholesalers' Bad-Debt Losses Analyzed According to Credit Terms, 1939 and 1938—Continued

Credit terms	Number of reports	Percent bad debts to credit sales	
		1939	1938
1 percent 10 days, net 30 days	114	.30	.35
2 percent 30 days, net 30 days	104	.35	.38
Net, 15 days	90	.28	.31
2 percent 10 days a. o. m.	84	.35	.44
2 percent 30 days, net 60 days	62	.45	.46
2 percent 30 days, net 31 days	57	.35	.32
2 percent 10 days a. o. m., net 30 days	58	.35	.41
Net, 10 days	47	.31	.24
2 percent 15 days, net 30 days	34	.34	.34
2 percent 10 days a. o. m., net 15 days	26	.37	.36
2 percent 60 days, net 30 days	16	.28	.28
1 percent 15 days, net 30 days	15	.28	.27
2 percent 15 days, net 60 days	12	.06	.70
1 percent 10 days a. o. m., net 30 days	12	.30	.38
3 percent 70 days, net 60 days	11	.30	.38
3 percent 10 days, net 15 days	11	.27	.33
3 percent 30 days, net 60 days	10	.06	.50
Net, 30 days	8	.70	.58
3 or 4 percent 70 days, net 60 days	8	.44	.33
2 percent 60 days, net 61 days	8	.48	.44
3 or 4 percent 10 days, net 60 days	7	.34	.31
3 or 4 percent 10 days a. o. m.	7	.23	.29
2 percent 7 days, net 30 days	7	.15	.18
1 percent 10 days a. o. m.	5	.18	.24
3 or 4 percent 10 days, net 30 days	5	.03	.30
5 percent 30 days, net 60 days	5	.57	1.74
1 percent 15 days, net 30 days	5	.28	.27
1 percent 30 days, net 60 days	4	.68	1.06
3 or 4 percent 10 days, net 30 days	4	.08	.05
0 to 9 percent 15 days, net 30 days	4	.20	.28
1 percent 7 days, net 15 days	4	.15	.20
1 percent 7 days, net 30 days	4	.17	.21

Table 14.—Manufacturers' Bad-Debt Losses Analyzed According to Credit Terms, 1939 and 1938

Credit terms	Number of reports	Percent bad debts to credit sales	
		1939	1938
2 percent 10 days, net 30 days	288	0.13	0.14
1 percent 10 days, net 30 days	228	.17	.16
Net, 30 days	183	.19	.13
2 percent 10 days a. o. m., net 30 days	72	.15	.17
2 percent 15 days, net 30 days	68	.14	.22
2 percent 15 days, net 60 days	47	.38	.39
2 percent 30 days, net 60 days	44	.28	.34
2 percent 15 days a. o. m., net 30 days	35	.20	.15
2 percent 30 days a. o. m.	29	.28	.28
Net, 7 days	21	.14	.18
1 percent 15 days, net 30 days	20	.19	.25
2 percent 30 days, net 31 days	16	.07	.18
1 percent 30 days a. o. m., net 30 days	11	.29	.24
Net, 10 days	9	.06	.05
2 percent 15 days, net 60 days	8	.10	.28
2 percent 10 days, net 15 days	7	.19	.17
Net, 15 days	7	.18	.24
1 percent 10 days, net 60 days	6	.23	.09
3 percent 10 days a. o. m.	6	.23	.35
2 percent 30 days, net 60 days	6	.14	.11
2 percent 30 days, net 90 days	6	.11	.28
3 or 4 percent 15 days, net 30 days	5	.20	.21
3 or 4 percent 30 days, net 31 days	5	.11	.13
5 percent 15 days, net 30 days	4	.62	.04
2 percent 30 days, net 61 days	4	.70	.56
2 percent 15 days, net 20 days	4	.23	.54
2 percent 10 days a. o. m., net 15 days	4	.20	.45
3 or 4 percent 30 days, net 60 days	4	.13	.25
1 percent 10 days a. o. m.	4	.18	.25
1 percent 30 days, net 60 days	4	.18	.17
5 percent 10 days, net 30 days	4	.18	1.31

Table 15.—Bad-Debt-Loss Percentages of Wholesalers and Manufacturers, Classified According to Credit-Term Factors, 1939 and 1938

Factors in credit terms	Number of reports	Percent bad debts to credit sales		Factors in credit terms	Number of reports	Percent bad debts to credit sales	
		1939	1938			1939	1938
WHOLESALES				MANUFACTURERS			
Cash discount extended:				Cash discount extended:			
Net, none.....	479	0.25	0.26	Net, none.....	199	0.17	0.14
1 percent.....	154	.31	.31	1 percent.....	238	.19	.18
2 percent.....	1,235	.34	.37	2 percent.....	785	.15	.17
3 or 4 percent.....	48	.30	.40	3 or 4 percent.....	92	.17	.21
5 percent and more.....	31	.20	.48	5 percent and more.....	64	.25	.37
Time in which cash discount may be taken:				Time in which cash discount may be taken:			
7 days.....	29	.15	.12	7 or 10 days.....	739	.18	.17
10 days.....	742	.31	.34	10 days a. o. m.....	174	.10	.10
10 days a. o. m.....	539	.37	.39	15 days.....	108	.17	.23
15 days.....	85	.41	.40	30 or 31 days.....	114	.18	.30
30 or 31 days.....	250	.38	.38	More than 31 days.....	27	.07	.08
More than 31 days.....	54	.28	.30	Time at which net amount of invoice is due:			
Time at which net amount of invoice is due:				7 or 10 days.....	34	.10	.09
7 days.....	168	.18	.26	15 days.....	27	.17	.27
10 days.....	67	.31	.38	20 days.....	1,632	.15	.15
15 days.....	151	.22	.31	30 days.....	180	.28	.28
30 days.....	1,111	.31	.33	60 days.....	25	.20	.21
60 days.....	307	.30	.41	More than 60 days.....	10	.21	.20
More than 60 days.....	74	.33	.37				

Table 16.—Wholesalers' Bad-Debt Losses Analyzed According to Credit Terms, by Kind of Business, 1939 and 1938

Kind of business and credit terms	Number of reports	Percent bad debts to credit sales		Kind of business and credit terms	Number of reports	Percent bad debts to credit sales		Kind of business and credit terms	Number of reports	Percent bad debts to credit sales	
		1939	1938			1939	1938			1939	1938
Automotive supplies	158	0.63	0.68	Trunk-man-wholesale grocers	245	.32	.30	Pinning and heating supplies	38	.59	.54
2 percent 10 days a. o. m., net 30 days	26	.72	.66	Net, 7 days	32	.32	.30	2 percent 10 days, net 30 days	39	.44	.46
2 percent 10 days a. o. m.	23	.67	.68	2 percent 10 days, net 30 days	29	.40	.47	2 percent 10 days a. o. m., net 30 days	21	.65	.47
3 percent 10 days, net 30 days	27	.55	.49	Net, 30 days	25	.49	.34	3 percent 10 days a. o. m., net 60 days	11	.52	.30
3 percent 30 days, net 60 days	3	.73	.73	Net, 15 days	25	.23	.22	2 percent 10 days a. o. m.	8	.77	.44
2 percent 30 days, net 30 days	6	.61	.42	1 percent 10 days, net 30 days	23	.25	.19	2 percent 30 days, net 60 days	6	.54	.64
Net, 30 days	5	.61	.27	Net, 10 days	15	.34	1.25	1 percent 10 days, net 30 days	4	.23	.14
2 percent 10 days a. o. m., net 15 days	5	.41	.08	2 percent 10 days, net 30 days	19	.19	.16	Jewelry	38	.50	.71
Chemicals (industrial)	17	.13	.20	1 percent 15 days, net 30 days	9	.20	.25	2 percent 30 days, net 60 days	10	.58	1.08
1 percent 10 days, net 30 days	4	.15	.14	2 percent 7 days, net 30 days	6	.13	.22	Lumber and building materials	40	.35	.44
2 percent 10 days, net 30 days	4	.21	.22	Voluntary group wholesale grocers	119	.33	.39	2 percent 10 days, net 30 days	7	.50	.65
Net, 30 days	4	.04	.10	Net, 15 days	31	.30	.35	3 percent 10 days a. o. m., net 30 days	7	.22	.19
Paints and varnishes	28	.24	.27	Net, 7 days	20	.24	.27	1 percent 10 days, net 30 days	5	.37	.58
2 percent 10 days, net 30 days	19	.60	.46	1 percent 15 days, net 30 days	12	.47	.57	2 percent 10 days a. o. m., net 60 days	4	.28	.28
2 percent 30 days, net 60 days	3	.73	.70	Net, 30 days	12	.35	.53	Machinery, equipment, and supplies, except electrical	65	.50	.35
Shoes and other footwear	34	.45	.41	2 percent 10 days, net 30 days	8	.26	.39	2 percent 10 days, net 30 days	18	.36	.36
2 percent 10 days, net 30 days	3	.49	.58	Net, 10 days	8	.21	.39	1 percent 10 days, net 30 days	9	.48	.17
Drugs and drug sundries without liquor department	51	.38	.31	Retailer-cooperative wholesale grocers	12	.05	.04	Net, 30 days	8	.43	.40
2 percent 10 days, net 30 days	4	1.37	1.50	Net, 7 days	6	.06	.07	3 percent 10 days a. o. m., net 30 days	8	.14	.21
Dry goods	108	.37	.31	Specialty-line wholesale grocers	103	.29	.35	Surgical equipment and supplies	32	.18	.06
2 percent 60 days, net 30 days	15	.26	.27	2 percent 15 days, net 30 days	22	.13	.16	3 percent 10 days, net 30 days	18	.01	.04
2 percent 10 days, net 30 days	12	.25	.14	Net, 30 days	14	.39	.07	Metals	50	.23	.30
2 percent 30 days, net 60 days	11	.40	.28	Net, 7 days	13	.10	.12	1 percent 10 days, net 30 days	9	.24	.30
2 percent 30 days, net 30 days	3	.14	.25	1 percent 10 days, net 10 days	12	.50	.69	2 percent 10 days, net 30 days	4	.10	.30
2 or 4 percent 10 days, net 30 days	9	.33	.52	Net, 10 days	2	.30	.63	Paper and its products	84	.40	.39
2 percent 15 days, net 40 days	4	.54	.72	Wines and spirituous liquors	19	.47	.34	2 percent 10 days, net 30 days	36	.24	.27
2 percent 60 days, net 31 days	4	.23	.39	Net, 30 days	9	.45	.27	2 percent 30 days, net 31 days	31	.42	.29
Electrical goods	217	.24	.24	Net, 15 days	4	.57	.20	2 percent 10 days a. o. m.	9	.48	.23
2 percent 10 days, net 30 days	73	.22	.20	General hardware	122	.35	.41	2 percent 10 days a. o. m., net 30 days	7	.40	.37
2 percent 10 days a. o. m., net 30 days	11	.59	.83	2 percent 15 days, net 60 days	38	.45	.43	days	7	.29	.19
2 percent 10 days a. o. m., net 15 days	6	.36	.68	2 percent 10 days, net 30 days	37	.30	.46	Petroleum	11	.18	.17
Net, 30 days	5	.47	.48	2 percent 30 days, net 60 days	16	.20	.39	1 percent 10 days, net 30 days	6	.10	.09
Dairy and poultry products	14	.17	.14	2 percent 30 days a. o. m., net 30 days	11	.33	.33	2 percent 10 days, net 30 days	17	.23	.23
Net, 7 days	4	.19	.16	days	9	.07	.11	2 percent 30 days, net 31 days	9	.19	.25
Fresh fruits and vegetables	76	.34	.32	Heavy hardware	29	.16	.26	Net, 15 days	2	.18	.29
Net, 7 days	30	.19	.25	1 percent 30 days, net 30 days	7	.19	.24	Net, 30 days	7	.21	.17
Net, 10 days	7	.31	.34	2 percent 10 days a. o. m., net 30 days	4	.26	.04	2 percent 15 days, net 30 days	6	.29	.22
Net, 15 days	6	.41	.14	days	103	.40	.29	2 percent 10 days a. o. m., net 30 days	4	.21	.25
Net, 30 days	4	.64	.44	Industrial supplies	80	.39	.31	3 to 7 percent 15 days, net 30 days	4	.30	.25
Furniture and house furnishings	62	.33	.33	2 percent 10 days, net 30 days	22	.79	.55	Leather and shoe findings	11	.14	.37
2 percent 30 days, net 60 days	11	.34	.36	2 percent 10 days a. o. m.	10	.21	.22	2 percent 10 days, net 30 days	6	.02	.09
2 percent 10 days, net 30 days	10	.40	.31	2 percent 10 days a. o. m., net 60 days	6	.11	.04	Miscellaneous	57	.38	.29
2 or 4 percent 10 days, net 30 days	5	.44	.33	days	6	.01	.07	2 percent 10 days, net 30 days	10	.28	.11
Confectonery	20	.39	.49	1 percent 30 days, net 30 days	6	.11	.04	Net, 30 days	7	.10	.12
2 percent 15 days, net 30 days	4	.41	.44	2 percent 30 days, net 60 days	6	.04	.06				
2 percent 15 days, net 30 days	4	.33	.45	2 percent 30 days, net 60 days	6	.18	.34				
Meats and meat products	68	.25	.26	1 percent 10 days a. o. m., net 30 days	4	.13	.13				
Net, 7 days	32	.14	.15								
Net, 15 days	5	.53	.06								

Table 17.—Manufacturers' Bad-Debt Losses Analyzed According to Credit Terms, by Industries, 1939 and 1938

Industry and credit terms	Number of reports	Percent bad debts to credit sales		Industry and credit terms	Number of reports	Percent bad debts to credit sales	
		1939	1938			1939	1938
Canneries	188	0.10	0.21	Other chemical products	37	.20	.22
2 percent 10 days, net 30 days	32	.25	.35	2 percent 10 days, net 30 days	17	.16	.15
2 percent 15 days, net 30 days	43	.17	.30	1 percent 10 days, net 30 days	10	.24	.19
2 percent 10 days, net 15 days	5	.10	.13	Petroleum products	19	.24	.23
2 percent 10 days a. o. m., net 30 days	4	.23	.43	1 percent 10 days, net 30 days	9	.23	.23
2 percent 10 days, net 30 days	4	.08	.13	Rubber products	13	.14	.20
Flour, cereals, and other grain-mill products	22	.20	.35	2 percent 10 days, net 30 days	5	.12	.50
Net, 30 days	6	.11	.15	Boots and shoes	24	.17	.18
Meat packing	34	.13	.12	2 percent 30 days, net 60 days	4	.06	.21
Net, 7 days	17	.12	.14	Leather: Tanned, curried, and finished	33	.15	.16
Dried liquor	10	.05	.01	2 percent 30 days, net 60 days	13	.15	.15
Net, 30 days	4	.04	.01	Other leather products	21	.17	.18
Malt liquor	20	.27	.17	2 percent 10 days, net 30 days	5	.24	.20
Net, 30 days	10	.56	.66	Illuminating glassware (globes, shades, reflectors, etc.)	10	.21	.22
Wine	18	.72	.72	1 percent 15 days, net 30 days	0	.21	.55
Net, 30 days	4	.79	.45	Other stone, clay, and glass products	53	.25	.19
2 percent 10 days, net 30 days	4	.63	3.59	1 percent 15 days, net 30 days	9	.66	.50
Other food products	110	.12	.05	2 percent 10 days, net 30 days	5	.15	.15
2 percent 10 days, net 30 days	40	.04	.05	Hardware	14	.15	.22
1 percent 10 days, net 30 days	34	.00	.06	2 percent 10 days, net 30 days	9	.17	.12
Net, 30 days	5	.84	.70	Stoves and ranges	23	.25	.28
Clothing, men's, except hats	20	.20	.20	2 percent 10 days, net 30 days	6	.10	.17
Net, 30 days	7	.12	.10	Other iron and steel products	111	.07	.06
Clothing, women's, except millinery	20	.28	.32	1 percent 10 days, net 30 days	45	.05	.06
4 to 9 percent 10 days, a. o. m.	4	.27	.41	2 percent 10 days, net 30 days	37	.00	.04
Other textile products	67	.12	.20	Net, 30 days	7	.15	.35
2 percent 10 days, net 30 days	11	.03	.14	2 percent 10 days a. o. m., net 30 days	5	.11	.03
2 percent 10 days, net 30 days	4	.18	.11	1 percent 10 days a. o. m., net 30 days	4	.03	.04
Furniture	25	.27	.20	2 percent 10 days a. o. m., net 60 days	4	.00	.00
2 percent 30 days, net 60 days	9	.32	.48	2 percent 10 days, net 60 days	4	.03	.05
2 percent 10 days, net 30 days	7	.54	.22	Other nonferrous metals and their products	30	.15	.15
Lumber, timber and other miscellaneous forest products	28	.29	.20	1 percent 10 days, net 30 days	3	.24	.25
2 percent 10 days, net 30 days	10	.31	.45	2 percent 10 days, net 30 days	3	.08	.16
1 percent 10 days, net 30 days	4	.15	.41	Electrical machinery, apparatus, and supplies	98	.09	.12
Paper: Writing, book, etc.	17	.10	.11	Net, 30 days	15	.08	.07
Net, 30 days	4	.57	.24	1 percent 10 days, net 30 days	13	.22	.09
Wax paper	12	.16	.16	2 percent 10 days, net 30 days	13	.06	.06
2 percent 10 days, net 30 days	18	.18	.28	2 percent 10 days a. o. m., net 30 days	9	.15	.15
Paper boxes and other paper products	53	.11	.17	Other machinery: Foundry products	110	.29	.51
1 percent 10 days, net 30 days	26	.10	.19	2 percent 10 days, net 30 days	27	.36	.53
2 percent 10 days, net 30 days	7	.22	.41	Net, 30 days	23	.10	.06
2 percent 30 days, net 60 days	5	.10	.15	1 percent 10 days, net 30 days	22	.20	.35
Printing, publishing, and allied industries	23	.42	.58	2 percent 10 days, net 30 days	37	.12	.13
Net, 30 days	17	.42	.55	2 percent 10 days a. o. m., net 30 days	12	.15	.14
2 percent 10 days, net 30 days	11	.45	.41	2 percent 10 days a. o. m.	5	.51	.50
Pharmaceuticals, etc.—drugs	28	.24	.38	2 percent 10 days, net 30 days	4	.85	.68
2 percent 10 days, net 30 days	15	.21	.27	Miscellaneous	64	.15	.15
Paints and varnishes	52	.57	.45	2 percent 10 days, net 30 days	29	.20	.19
1 percent 10 days, net 30 days	24	.71	.50	1 percent 10 days, net 30 days	5	.12	.14
1 percent 10 days, net 30 days	11	.23	.37	2 percent 10 days a. o. m., net 30 days	5	.50	.50
2 percent 10 days, net 30 days	10	.43	.38	2 percent 10 days a. o. m., net 60 days	4	.33	.47
2 percent 10 days a. o. m., net 60 days	8	.56	.01	Net, 30 days	4	.02	.03